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ABSTRACT

This guide's primary focus is to recommend good health and safety practices to helpensure safer schools in Washington state. Some of the safety practices that are recommended affect school operationand maintenance, repairs and minor construction, as well as the school's administrative organization and lines of communication. The guide also focuses on practices that can be undertaken during the design, construction, renovation, operation, maintenance, or inspection of any school. The guide's sections address general procedures; building maintenance and operations; general safety; plumbing, water supply, and fixtures; sewage disposal; indoor air quality; HVAC preventative maintenance; sound control; lighting; food service; science classrooms and laboratories; career and technology education; blood borne pathogens and exposure control plans; playgrounds; animals in schools; emergency and disaster preparedness; pesticide use in school; visual and performing arts education; and athletics. (Contains appendices on inspection protocols, health district fee guidelines, agency roles and responsibilities, restricted chemicals in laboratories, inspection protocols and special considerations for visual and performing arts classrooms, references, Web sites, and related documents. (EV)

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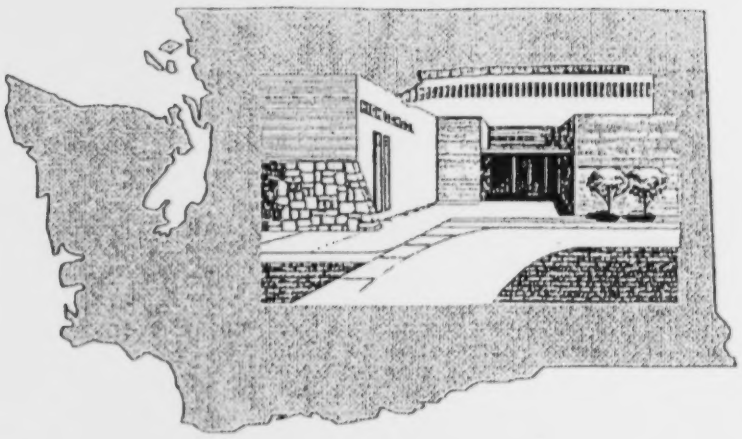
Health and Safety Guide

for K–12 Schools in Washington



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K–12 Schools in Washington
Second Edition

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January 2003

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Preface

The Second Edition of Health and Safety Guide for K-12 Schools in Washington (Guide) is once again being jointly promulgated by the Office of Superintendent of Public Instruction (OSPI) and the Washington State Department of Health (DOH) in accordance with WAC 246-366-140.

The First Edition of the Health and Safety Guide was developed between August 1996 and June 2000 under the authority of the Washington State Board of Health (SBOH) rules (WAC 246-366-140). In April 1996, DOH and OSPI formed the Washington State School Facilities Health and Safety Advisory Committee (HSAC). The HSAC was tasked with developing the Guide and related documents including a fee guide, roles and responsibilities matrix, and a school inspection protocol. During the development of the First Edition of the Guide, staff from DOH and Educational Service District 101 (ESD) compiled information from numerous health and safety regulations and experts. Several draft guides were developed and presented to HSAC for review. The Guide was field-tested by OSPI in coordination with DOH, North Thurston School District, Thurston County Health District, Snohomish School District, Snohomish County Health District, Spokane School District and Spokane Regional Health District. Comments from those inspections have been incorporated in the Guide.

DOH and OSPI continue to encourage all users of the Guide to:

1. Examine its concepts, recommendations, citations, references, and procedures;
2. Evaluate their usefulness, effectiveness, and accuracy;
3. Identify any costs and obstacles to implementation; and,
4. Describe any benefits received.

Users of the Guide are invited to report their findings and suggestions to the DOH-Office of Environmental Health and Safety. Such information will be used to update and improve future editions of the Guide and will assist in identifying training and technical assistance needs related to school health and safety. This Guide is meant to be as practical and up to date as possible. The assistance and input of all users of the Guide is greatly appreciated.

It is important to recognize that the practices specified or recommended in the Guide include some that are already *required* by code or law and others that are *recommendations* which may help promote good health and safety practices in schools. It is the responsibility of each school district and other users of the Guide to comply with applicable codes and laws, including those related to building, plumbing, electrical and mechanical systems, fire protection, safety, energy use and environmental protection. However, all users of the Guide, including school districts, should evaluate the discretionary recommendations presented and adopt or promote those that, in their judgment, are relevant, applicable to their circumstances, and feasible to implement. In the event that any recommendations offered in the Guide are in conflict with any applicable codes or laws, such codes or laws shall take precedence.

Introduction

Second Edition, January 2003

This second edition is the result of input received from users of the Guide during the period from December 2000 through June of 2002. A committee of School and Health personnel worked during June, July and August of 2002 to incorporate those comments, add several new sections, and update code references and requirements.

The Guide's Purpose

The Guide was written in accordance with the SBOH Primary and Secondary School Regulations, WAC 246-366-140, which state in part that DOH and OSPI " . . .shall jointly prepare a guide for use by department personnel during routine school inspections in identifying violations of good safety practices." These regulations can be found at: http://slc.leg.wa.gov. The Guide is intended to help prevent and reduce injuries and illnesses in Washington's K–12 schools.

Multiple Uses of the Guide

The Guide's primary focus is to recommend good health and safety practices to help ensure safer schools. It is not aimed at preventing intentional violence in schools. Violence in schools has been extensively addressed elsewhere, including numerous documents on the Washington State Office of Attorney General and OSPI websites. Several excellent documents found on these sites include: *It's Our School, Rebuilding Schools as Safe Havens, Recommendations of the Youth Safety Summit, and Safe Schools Resource Guide.* Two helpful websites that focus on school violence issues and solutions can be found at: www.nssc1.org and http://www.k12.wa.us/safetycenter/.

Some of the safety practices that are recommended in the Guide affect school operation and maintenance, repairs and minor construction, as well as the school's administrative organization and lines of communication. The Guide is available on the Internet on DOH and OSPI websites: www.doh.wa.gov or www.k12.wa.us/facilities/healthsafetyguide.asp. The Guide is intended for use as a school self-inspection tool. It is not an inspector's checklist due to its length and detail. Inspectors may want to create their own short version of the guide for use during inspections.

The Guide can be used for report documentation, creating and tracking work orders and creating customized checklists for various users.

Plan Review

The Guide also focuses on practices that can be undertaken during the design, construction, renovation, operation, maintenance or inspection of any school. In this Second Edition of the Guide, another column has been added for plan review items. A short version of the Guide, containing only those items flagged for school designers and plan reviewers is located on the websites titled Safety & Health Plan Review Checklist. www.doh.wa.gov or www.k12.wa.us/facilities/healthsafetyguide.asp.

Plan reviewers may use those portions of the Guide that apply to their specific responsibilities. For example, a health district plan reviewer is not expected to review plans for a fire alarm system or an HVAC system. Nor is a fire marshal expected to review plans for a septic system or a food service operation. In this example, the health district reviewer would simply ensure that the fire marshal had checked for all of the Fire Code items and signed off on the plans. Both reviewers would assure themselves that the local building official (authority having jurisdiction) had reviewed and approved the HVAC system plans. The intent of this Guide is to make a reviewer's job easier, not to increase their workload.

Appendices

The Guide contains appendices on inspection protocols, health district fee guidelines, agency roles and responsibilities, restricted chemicals in laboratories, inspection protocols and special considerations for visual and performing arts classrooms, references, websites and related documents. The broad scope of the Guide will allow it to be useful in managing a variety of health and safety issues on a school campus. Part III was NOT updated from the 2000 edition and may contain some dated materials.

Causes of Poor Health and Safety Conditions

Poor health and safety conditions may result from many causes including but not limited to physical, electrical and structural hazards, poor indoor air quality and/or temperature control, building materials, furnishings and equipment. Human error, facility operation, and maintenance practices, as well as the various activities of students, parents and other school user groups can also contribute to health and safety problems. Although there is no single solution for all of these problems, thorough and routine inspections of school facilities will help in reducing illness and injuries to students, staff and visitors.

Who Will Use the Guide?

The Guide is primarily intended for use by:

School district staff
School risk managers and safety officers
Local health jurisdictions
Architects and engineers

Other groups that have a significant interest in the Guide include:

Washington State School Directors' Association
Washington Association of School Administrators
Washington Association of School Business Officials
Washington Association of Maintenance and Operations Administrators
Washington Association for Career and Technical Education
Washington Science Teachers' Association
Washington Education Association
Washington Federation of Teachers
School Nurse Organization of Washington
Local school boards
Parents
Students
Building Officials and Fire Marshals
School site councils
State and Federal agencies
State Board of Health
State Board of Education
Other related organizations, including the School Facilities Advisory Board
Other contract providers of supplies, services, equipment and facilities

The other contract providers identified above include companies that provide sports and playground equipment, air handling systems, school supplies, construction materials, and building furnishings.

To ensure accountability and appropriate use of the practices presented in the Guide, each school is required under Washington State Department of Labor and Industries (L&I) WISHA rules (WAC 296-800-130) to organize a safety committee. The Guide and other related documents could assist these site-based safety committees in performing self-assessments of their facilities. www.lni.wa.gov/wisha/corerules/

It is important for school administrators and safety committees to alert other interested parties of their efforts to address health and safety issues at their school. The school's safety committee should work closely with the groups listed above to ensure that good communication and cooperation is obtained.

Organization and Content of the Guide

The sections in Part II address special subjects that were determined by SBOH rules and the HSAC to need special attention. It is anticipated that requests for changes and additional material will necessitate that the Guide be revised periodically to ensure its accuracy to the users. Therefore, users are encouraged to submit other rules, standards, guidelines, references, websites, and updated or useful source materials to: School Program Coordinator, DOH, PO Box 47825, Olympia, WA, 98504-7825.

Summary of Sections

Section A: General Procedures addresses the importance of having a cooperative, systematic approach while working with school districts. The need for proper communication channels, building and demographic data, and injury and health information is reviewed along with the review of prior reports from health agencies and others. The need to discuss plans for minor or major remodeling is also covered in this section.

Section B: Building Operation and Maintenance these areas include cleanliness, chemical storage, floors, walls, ceilings, vermin control, windows and window shades, and storage areas.

Section C: General Safety deals with injury prevention. Several hazards listed in this section have been observed frequently, while others occur less often or rarely. The frequency and severity of unsafe conditions are combined to prioritize hazards for elimination or mitigation. Many school districts have only limited funding for maintenance and are able to address only those hazards that present the greatest potential for severe injury, serious illness or long-term disability. In some extraordinary cases, health officials have statutory power and a duty to require schools to immediately eliminate hazards that pose an immediate life safety threat. Health officials may also require that children be kept away from a hazard by closing part or all of a school facility until the hazard is eliminated. RCW 43.70 and RCW 70.05.

The Washington Administrative Code requires most of the items in this section while others are recommendations based on the combined experience of committee members and inspectors. These distinctions are clearly made throughout the Guide so that parents, teachers, inspectors and school administrators will know what is required versus what is recommended. This is a key distinction for many school districts as they address maintenance, operations and capital improvement projects related to health and safety issues.

Section D: Plumbing, Water Supply and Fixtures refers to the Washington Administrative Code requirements for public water systems (WAC 246-290). The section also refers to maintaining compliance with the Washington State Building and Plumbing codes. These codes are available at public libraries and on the Internet at http://slc.leg.wa.gov.

Section E: Sewage Disposal outlines the school's responsibilities to local and state health authorities in addressing on-site sewage disposal systems. The Washington Administrative Code that applies in this area is WAC 246-366. Maintenance and abandonment of sewage systems is discussed in WAC 246-272. Refer to: www.doh.wa.gov/ehp/ts/waste.htm.

Section F: Indoor Air Quality addresses air quality in schools and refers readers to useful indoor air quality (IAQ) reference materials. IAQ issues have become a major issue for some schools. Mold, toxic fumes, volatile compounds, dust, auto exhaust, and lack of sufficient outside air have all contributed to indoor air quality problems in schools in Washington State. In some instances, these problems have resulted in evacuations and temporary closures of schools.

The Environmental Protection Agency (EPA) and DOH have both written publications targeted specifically at IAQ in schools. EPA's *Tools for Schools* is a user-friendly, problem-solving tool targeted mainly at existing schools, with concise action lists for various school staff and others. Contact EPA for this publication. A new EPA publication titled IAQ Design Tools for Schools is being published for new school construction.

DOH's *School Indoor Air Quality Best Management Practices Manual* covers air quality issues related to new school sitting, design, materials, construction scheduling, source control, air quality standards, dealing with specialty areas in shops and labs, and differences in ventilation systems. The manual is free and can be downloaded at http://www.doh.wa.gov/ehp/ts/iaq/pdf. Section 6 should be of particular interest to designers of school buildings.

These publications should help schools solve many IAQ problems as they emphasize effective communication with teachers, students and parents and have become valuable references for school districts in Washington, other states and Canada.

Section F, IAQ should be utilized with Section G, HVAC Preventative Maintenance.

Section G: HVAC Preventative Maintenance provides readers with a maintenance and operations (M&O) guideline for school heating, ventilation and air conditioning systems. This section should be utilized with Section F, Indoor Air Quality. www.doh.wa.gov/ehp/ts/iaq.htm and www.epa.gov/iaq/largebldgs/baq_page.htm

Section H: Sound Control describes acceptable noise levels in schools. The section addresses portables, new construction, building and mechanical codes, as well as industrial arts areas. Impulse, impact and long-term noise exposure levels are addressed. Table-A in WAC 246-366-110(5) covers most school situations.

Section I: Lighting sets forth regulations governing minimum light intensities in general instruction areas, classrooms, libraries, laboratories, kitchens, corridors, auditoriums, gymnasiums, locker rooms and other areas of the school. Other issues such as shadows, glare, task lighting and excessive brightness are also covered. The Northwest Lighting Lab is a valuable resource that is available to schools: www.northwestlighting.com

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Section J: Food Service refers to WAC 246-366-13-215, 217, 070(3)(f) and 140. Reference is also made to EPA and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) requirements for separating toxic materials from food. Federal and state rules and laws concerning food are available at public libraries and on the Internet at www.mrsc.org/wac/htm.

Section K: Science Classrooms and Laboratories contains basic safety provisions that are consistent with DOH, OSPI, the Washington State Science Teachers' Association and the L&I-WISHA rules.

There are numerous federal, state, local, private and non-profit organizations involved in science laboratory issues. These organizations may provide funding or technical assistance, conduct research, supply publications, serve in a regulatory capacity or represent special interest groups.

In addition to this section, an appendix contains information regarding chemicals that should **not** be in K–12 schools under any circumstances (Table 1), and chemicals that can be used in advanced classes under controlled conditions and in small quantities (Table 2).

Section L: Career & Technical Education references the current edition of the *Safety Guide for CTE,* published by OSPI. This publication is available for downloading from the Internet at: www.k12.wa.us/careerteched/techprep/default.asp

Section M: Bloodborne Pathogens & Exposure Control Plan contains WISHA rules that have been distributed to schools by OSPI, L&I and other agencies.

Section N: Playgrounds refers users to the Consumer Product Safety Commission (CPSC) *Handbook for Public Playgrounds* and the American Society for Testing and Materials (ASTM) voluntary standards for public playgrounds. The CPSC Website **www.cpsc.gov/cpscpub/pubs/playpubs.htm** contains the handbook referenced above as well as other useful playground safety information and checklists that address a wide range of playground safety and health topics.

Section O: Animals in Classrooms addresses live animals, reptiles, birds, insects, lab specimens, and other live or dead animals and was written with input from animal advocates, veterinarians, teachers, custodians, nurses, parents, risk managers, principals, environmental health professionals, and others with a broad range of experience in dealing with animals in schools.

In addition to this section, Appendix F provides information in order to answer specific questions related to the proper handling of animals and specimens in classrooms.

Section P: Emergency and Disaster Preparedness deals with disasters and emergencies at schools. Being prepared for emergencies and disasters requires multi-agency coordination and pre-planning for each foreseeable school emergency. Information on evacuation routes, awareness of L&I-WISHA rules, local response capabilities and other conditions need to be provided to teachers, parents and students.

Regular drills help make such plans work and are an important part in preparing for emergencies. Ongoing documentation of training and drills also helps to maintain the readiness capacity of schools to act. Records of drills and training also answer any questions about preparedness, either before or after any emergency or disaster situation occurs.

Section Q: Pesticide Use in Schools addresses a new law in Washington State that regulates the use of pesticides in schools -- RCW 17.21

Section R: Visual and Performing Arts Education addresses some old issues related to "arts and crafts" and some new issues relating to the much broader issue of all of the visual and performing arts.

Section S: Athletics. This new section provides some very basic information relating to school athletics. It is our intention to expand this section in the future.

Part II

A. GENERAL PROCEDURES

		Required	Recommended	WAC or Other Code Reference	Plans Review
A 001 S U ☐ ☐	A health and safety pre-inspection interview shall be conducted with the school administrator for routine inspections. Procedures relating to health district inspections of schools shall be in compliance with the jointly agreed upon guidelines of the Department of Health (DOH) and the Office of Superintendent of Public Instruction (OSPI).	x		296-24-040	
A 002 S U ☐ ☐	General School Data: Review building age, type, square footage; names of key personnel on site; building floor and site plans as appropriate (e.g.: fire ext routes and/or directional maps which are often given to parents at "open-house" events.	x		OSPI and DOH	
A 003 S U ☐ ☐	Demographics: Review enrollment numbers, grade span, etc. (approximate numbers are sufficient).	x		OSPI and DOH	
A 004 S U ☐ ☐	Safety and Health Data: Review general and/or summarized health and safety information and reports which may be useful in assessing health or safety trends or problems within the school.	x		OSPI and DOH	
A 005 S U ☐ ☐	History: Review previous health agency reports, safety committee reports, inspections, follow-ups and complaints (if any) and their disposition or other actions taken by the school in response.	x		OSPI and DOH	
A 006 S U ☐ ☐	Planning: Information related to planned future site improvements, additions, remodels, etc., should be shared with the health official prior to the inspection.	x		OSPI and DOH	
A 007 S U ☐ ☐	Recent inspection reports from other agencies may be reviewed by the health officer if provided by the school administrator.	x		296-24-020	
A 008 S U ☐ ☐	When building code requirements are questioned the local Building Official should be consulted.		x	RCW 19.27 UBC	x
A 009 S U ☐ ☐	When fire code requirements are questioned the local Fire Marshal or Fire Chief should be consulted. If no local fire official is available then the district should consult the State Fire Marshal.		x	UFC RCW 19.27	x
A 010 S U ☐ ☐	When day care, preschool, headstart or other similar programs are located in K-12 schools DOH day care regulations on safety and health should be consulted. DOH and some local health agencies have staff available to inspect these sites and respond to questions.		x	388-150	x

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B. BUILDING OPERATION & MAINTENANCE

		Recommended	Required	WAC or Other Code Reference	Plans Review
B 001 S ☐ U ☐	Buildings shall be kept clean and in good repair.		x	246-366-050(1) 296-24-12003(1)	
B 002 S ☐ U ☐	Ceilings in instructional areas shall have a minimum clear vertical distance of eight feet from finished floor to finished ceiling.		x	246-366-050(2)	x
B 003 S ☐ U ☐	Any projections from the finished ceiling shall be not less than seven feet vertical distance from the finished floor, i.e., beams, lighting fixtures, sprinklers, pipe work.		x	246-366-050(2)	x
B 004 S ☐ U ☐	Stairways and steps shall have handrails and non-slip treads in compliance with the applicable State Building Code (UBC).		x	246-366-050(3) 296-24-76501 UBC	x
B 005 S ☐ U ☐	Floors shall have an easily cleanable surface. Carpet is acceptable in appropriate locations. Refer to the School Indoor Air Quality Best Management Practices Manual published by DOH: download at: www.doh.wa.gov/ehp/ts/iaq.htm		x	246-366-050(4)	x
B 006 S ☐ U ☐	All buildings and premises shall be free of insects, rodents, and conditions which attract, provide harborage, and promote their propagation. (See Pesticide Use in Schools section)		x	246-366-050(5) 296-24-12021	
B 007 S ☐ U ☐	All hazardous substances and chemicals (e.g., cleaning and disinfecting products) shall be easily identified (e.g., labeled), and used with caution. They must be stored in such a manner as to prevent unauthorized use or possible contamination of food and drink.		x	246-366-050(6) 296-62-054	
B 008 S ☐ U ☐	There shall be sufficient, easily accessible, well-lighted, heated, and ventilated space provided for the storage of outdoor clothing, play equipment, and instructional equipment.		x	246-366-050(7)	x
B 009 S ☐ U ☐	School buildings shall be provided with windows sufficient in number, size, and location to permit students to see to the outside. No student shall occupy an instructional area without windows for more than 50 percent of the school day.		x	246-366-050(8)	x
B 010 S ☐ U ☐	Exterior sun control shall be provided to exclude direct sunlight from window areas and skylights in instructional areas, assembly, and meeting rooms during at least 80 percent of normal school hours. Sun control is not required for sun angles less than 42 degrees, nor if air conditioning is provided, nor if Low E glass is installed.		x	246-366-050(9)	x

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C. GENERAL SAFETY

		Recommended	Required	WAC or Other Code Reference	Plans Review
C 001 S ☐ U ☐	Safety glass shall be installed in all doors, display cases, and other large glass areas as required by the State Building Code (UBC) Human Impact Loads 2406.3 - "Individual glazed areas in hazardous locations (e.g., exit corridors) such as those indicated in Sec 2406.4.		x	RCW 19.27 UBC 2406.3 UBC 2406.4	x
C 002 S ☐ U ☐	Safe motor vehicle drop-off and pick-up locations are required for student arrival and departure.		x	392-145 392-151	x
C 003 S ☐ U ☐	All custodial maintenance supplies shall be labeled as to specific contents and be stored in secure areas inaccessible to students. MSDS sheets are required to be kept on site and readily available.		x	246-366-050 246-215-110	x
C 004 S ☐ U ☐	Custodial closets, boiler rooms, and other areas where hazardous or poisonous compounds are stored should be inaccessible to students.		x	246-366-050	x
C 005 S ☐ U ☐	Flammable liquids in excess of ten gallons total shall be stored in approved flammable storage cabinets as required by state fire code (UFC).		x	UFC 7902.5.8 296-24-33009	x
C 006 S ☐ U ☐	First aid kits shall be provided, and the location easily identified to students and staff, and comply with L & I WISHA rules. All first aid kits shall be regularly restocked in compliance with L & I's minimum requirements.		x	296-800-150	x
C 006a S ☐n U ☐a	NOTE: The size and contents of first aid kits should be assessed at each individual school. The number of children should be considered as well as the number of staff, to determine how many kits are needed. School administrators and local health officials should jointly evaluate the first aid kits and the locations.			OSPI and DOH	
C 007 S ☐ U ☐	First aid supplies other than those in first aid kits shall be properly stored and organized in cabinets or drawers and labeled as to their contents.	x		OSPI and DOH	
C 008 S ☐ U ☐	Cots or sick beds, when provided, shall have non-absorbent surfaces that are easily sanitized. Pillow covers and bed sheets shall be laundered or replaced between uses. Disposable bed sheets and pillow cases are recommended.		x	392-198 296-62-08001	
C 009 S ☐ U ☐	Medication shall be stored in a locked storage area. Unauthorized access by students or other persons should be prevented. Reference OSPI Bulletin 31-98 and OSPI website for additional information: http://www.k12.wa.us/learntoach suppl/healthservices/		x	RCW 28A.210.260 RCW 28A.210.270 246-370(7)(b)	
C 010 S ☐ U ☐	Radiators and steam and hot water pipes shall be protected or shielded in hallways, shower areas, auditoriums, and all other student traffic areas to prevent accidental burns.		x	296-24-73511	x
C 011 S ☐ U ☐	Paper cutters shall have finger guards and lock down safety latches. Repair or replace all paper cutters that have been modified or broken. Blades shall be fastened down when not in use.	x		ANSI	
C 012 S ☐ U ☐	Whenever a stage or platform drop-off exceeds four feet, a safety warning strip is required. The abrasive safety strip, which can be felt in the dark and is of contrasting color, shall be placed two feet from the edge of stages or elevated platforms. A lighted LED strip is acceptable.	x		OSPI and DOH	x

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C. GENERAL SAFETY

		Recommended	Required	WAC or Other Code Reference	Plans Review
C 013 S U ☐ ☐	Theater and other performing arts areas must meet L & I WISHA rules as well as Building and Fire Code requirements with regard to catwalks, rigging, pits, curtains, and storage areas.		x	296-800-260 UBC	x
C 014 S U ☐ ☐	Coat hooks should be located or protected so that they do not create a hazard to students.	x		OSPI and DOH	x
C 015 S U ☐ ☐	Scissors without sharp points (safety scissors) are recommended for student use in grades K-3.	x		OSPI and DOH	
C 016 S U ☐ ☐	Audiovisual equipment (especially TV's and other movable heavy items) which could fall from carts should be secured to the cart in a way that prevents the equipment from coming loose from the cart if the equipment or cart tips over. (See CPSC Safety Alert; April 1988). www.cpsc.gov	x		OSPI and DOH	
C 017 S U ☐ ☐	Lockers and bookshelves should be secured to prevent tipping. (See CPSC Safety Alert; March 1990). www.cpsc.gov	x		OSPI and DOH	x
C 018 S U ☐ ☐	Walls, doors, and posts behind basketball backboards should be padded and free of obstruction where it is possible for players to collide with them. Pads should be sufficient in size and depth to mitigate skull and spinal cord injuries.	x		OSPI and DOH	x
C 019 S U ☐ ☐	Protective padding should extend to the floor level since most serious permanent spinal cord and skull injuries that occur during basketball happen near the floor/wall junction.	x		OSPI and DOH	x
C 020 S U ☐ ☐	Patients in the school health or nurse's room should be visible to office staff (or another person) at all times.	x		OSPI and DOH	x
C 021 S U ☐ ☐	Electrical receptacles shall be properly grounded. Ground fault interrupter (GFI) devices shall be provided on all electrical receptacles within six (6) feet of sinks and other grounding sources. There must be sufficient number of outlets to minimize the use of extension cords.		x	296-24-95607 NEC 210-8(b)	x
C 022 S U ☐ ☐	A clear and unobstructed means of access with a minimum width of 30 inches and a minimum height of 78 inches shall be maintained from the operating face of an electrical panel board.		x	NEC UIFC	x
C 023 S U ☐ ☐	All contractors that perform lead-based paint inspection, risk assessment or removal in kindergarten classrooms, day-care centers, and preschools must be certified under Federal law. For information call the National Lead Information Center at 1-800-424-5323 or visit website: http://yosemite.epa.gov/r10/owcm.nsf/webpage/lead		x	40 CFR Part 745	x
C 024 S U ☐ ☐	All Local Education Agencies (LEA) (i.e.; school district) owned facilities must comply with the federal Asbestos Hazard Emergency Response Act (AHERA) For information, call 1-800-368-5888 or visit website: http://www.epa.gov/asbestos		x	40 CFR 763 Subpart E	x
C 025 S U ☐ ☐	During all asbestos abatement projects the Department of Labor & Industries regulations require "Good Faith" surveys, worker certification, communication of hazards to employees, personal protective equipment, housekeeping, medical surveillance, record keeping and exposure assessment.		x	296-62-077	x

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C. GENERAL SAFETY

		Required	Recommended	WAC or Other Code Reference	Plans Review
C 026 S U ☐ ☐	The school district has completed "Walk-Route Plans" for each elementary school that has students who walk to and from school. The "Guidebook for Student Pedestrian Safety" can be downloaded at the WSDOT website: http://www.wsdot.wa.gov/TA/PAandI/Bike-Ped/PedSafetyGB.pdf		x	392-151	x

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D. PLUMBING, WATER SUPPLY, AND FIXTURES

		Recommended	Required	WAC or Other Code Reference	Plans Review
D 001 S ☐ U ☐	At a minimum plumbing shall be sized, installed, and maintained in accordance with the state building (UBC) and plumbing (UPC) codes.		x	246-366-060 246-290 UPC	x
D 002 S ☐ U ☐	The water supply system for a school shall be designed, constructed, maintained, and operated in accordance with WAC 246-290. NOTE: the Uniform Building Code (UBC) requires compliance with the Uniform Plumbing Code (UPC)		x	246-366-060 246-290 RCW 19.27	x
D 003 S ☐ U ☐	Water from drinking fountains shall clear the nozzle to allow safe and healthy drinking access. Schools shall follow cross-connection and backflow prevention methods outlined in the State Rules.		x	246-290-490 51-40-0603 UPC 603.0	x
D 004 S ☐ U ☐	Vacuum breakers (i.e., anti-siphon devices, air-gap separations, reduced pressure devices, or double check valves) are required on water outlets with either threaded, serrated, or quick-coupling nozzles to prevent cross-contamination of the drinking water supply.		x	UPC 603.0	x
D 005 S ☐ U ☐	Soap shall be provided for all hand washing facilities.		x	246-366-060	x
D 006 S ☐ U ☐	Single-service towels shall be provided for all hand washing facilities. Common use towels are prohibited. Warm air dryers may be used in place of single-service towels. Roller-type cloth towel dispensers are also acceptable.		x	246-366-060	x
D 007 S ☐ U ☐	Toilet paper shall be available and located adjacent to each toilet fixture.		x	246-366-060 296-24-12007	x
D 008 S ☐ U ☐	Toilet and hand washing facilities shall be accessible for use during school hours and scheduled events.		x	246-366-060	x
D 009 S ☐ U ☐	Hand washing facilities shall be provided with hot water at a maximum of 120 degrees Fahrenheit (F).		x	246-366-060 51-46 51-47	x
D 010 S ☐ U ☐	Hand operated, self-closing faucets, when installed, shall provide ten seconds of running water. Self-closing faucets are required by the plumbing code in new construction and also when faucets are replaced.		x	246-366-060(d) 51-46 51-47	x
D 011 S ☐ U ☐	Showers with hot and cold water controls shall be provided for all physical education classes in grades 9-12. Hot water temperature shall be maintained above 100 degrees F (for sanitation) and below 120 degrees F (to prevent scalding.)		x	246-366-060(4)(a)	x
D 012 S ☐ U ☐	Drying areas, when provided, shall be adjacent to showers and locker rooms and have impervious, non-skid (non-slip) floors. NOTE: Carpeting in wet areas retains moisture that can lead to mold formation and/or the spread of bacteria, e.g., "athlete's foot," etc.		x	246-366-060	x
D 013 S ☐ U ☐	Walls in shower rooms shall be impervious up to the shower head height. Upper walls and ceilings in shower rooms shall have smooth and easily washable surfaces.		x	246-366-060	x

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D. PLUMBING, WATER SUPPLY, AND FIXTURES

		Recommended	Required	WAC or Other Code Reference	Plans Review
D 014 S ☐ U ☐	Locker rooms and dressing rooms shall be impervious, non-skid (non-slip) floors.		x	246-366-060	x
D 015 S ☐ U ☐	Walls in locker rooms and dressing rooms shall have smooth and easily washable surfaces.		x	246-366-060	x
D 016 S ☐ U ☐	School supplied towels shall be for individual use only and shall be laundered after each use.		x	246-366-060	
D 017 S ☐ U ☐	Locker and dressing room floors should be equipped with drains to eliminate standing water.		x	246-366-060	x
D 018 S ☐ U ☐	NOTE: Department of Health website contains applicable rules on developing water supplies, cross-connections, approval of water systems and the State Drinking Water Revolving Fund (loans). Website:http://www.doh.wa.gov/ehp/dw/		x	246-366-060	x
D 018a S ☐ U ☐ n a	NOTE: Cross-connection guidance is available from EPA's Office of Water Programs Water Supply Division. website: http://www.epa.gov/safewater/guidance/datta.html				x
D 019 S ☐ U ☐	Restrooms are "gender specific" unless one fixture restrooms (one toilet and one handwashing sink) to provide minimum standard of privacy.	x		OSPI and DOH	x
D 020 S ☐ U ☐	Staff/adults shall have completely separate restrooms apart from elementary school children.	x		OSPI and DOH	x
D 021 S ☐ U ☐	Young children (preschool through kindergarten and/or 1st grade) should have restrooms attached to the classrooms or close to their classes for their exclusive use.	x		OSPI and DOH	x
D 022 S ☐ U ☐	No fountain/hand washing combination sinks. This presents a risk of fecal contamination of the fountain and related issues.	x		OSPI and DOH	x

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E. SEWAGE DISPOSAL

		Required	Recommended	WAC or Other Code Reference	Plans Review
E 001 S ☐ U ☐	All sewage and waste water from a school shall be drained to a sewage disposal system which is approved by the jurisdictional agency having authority.		x	246-366-070	x
E 002 S ☐ U ☐	On-site sewage disposal systems shall be designed, constructed, and maintained in accordance with WAC 246-272. For assistance contact your local health department, visit DOH waste water website: www.doh.wa.gov/ehp/ts/waste.htm, or call 360-236-3062		x	246-366-070 246-272	x
E 003 S ☐ U ☐	Septic tanks that are no longer in use shall be abandoned in accordance with the Washington State Board of Health on-site sewage system regulations.		x	246-272-18501	x

F. INDOOR AIR QUALITY

		Recommended	Required	WAC or Other Code Reference	Plans Review
F 001 S U ☐ ☐	All sources producing air contaminants of public health importance shall be controlled by the provision and maintenance of heating, ventilating, and air conditioning (HVAC) systems as approved by the health officer in conformity with the Washington State Building Code and ASHRAE Standards in effect as of the date of construction.		x	51-13-304 & T.3-4 246-366-080 296-62-075 RCW 19.27-UBC	x
F 002 S U ☐ ☐	Incoming outside fresh-air levels meet requirements listed in ASHRAE 62 (latest adopted version) Table 2.2 Institutional Facilities--Education. Classrooms, music, libraries,auditoriums =15 cfm/person. Laboratories and Shops = 20 cfm/person.		x	RCW 19.27 ASHRAE 62	x
F 003 S U ☐ ☐	The Washington State Ventilation and Indoor Air Quality Code (WAC 51-13) adopted in 2000, contains specific minimum ventilation requirements for "Offices" and "Educational Facilities" in Table 3-4. NOTE: Footnote 9 for Offices recommends local exhaust for "some" office equipment. (e.g., photocopier and laminators)		x	51-13 Section 304 & Table 3-4	x
F 004 S U ☐ ☐	There shall be an on-demand, mechanical ventilation system providing additional air exchange as required by WISHA and the WA Ventilation Code for chemical areas such as photo darkrooms, storerooms, science labs (and other appropriate areas) with exhaust directly to the outside. i.e., 20 cfm per person.		x	296-62-075 51-13 Section 304 & Table 3-4	x
F 005 S U ☐ ☐	NOTE: Make-up air must be provided to these areas (mentioned in F 004) in amounts approximately equal to exhaust air when the ventilation rate is increased. Since these areas should always be operated under pressure that is slightly negative to the surrounding zones, supplied make-up air flow should not exceed exhaust air flow.		x	ASHRAE UBC UMC	x
F 006 S U ☐ ☐	All building exhaust stacks shall be located to prevent the exhaust from reentering the building; i.e., away from occupied areas, openable doors and windows and air intakes.		x	UBC UMC	x
F 007 S U ☐ ☐	Carbon dioxide levels in occupied areas should be routinely monitored according to ASHRAE suggested methods.	x		ASHRAE 62-89	
F 008 S U ☐ ☐	Occupied instructional areas in schools may not be set below 65 degrees F during school hours. 79 degrees F is the maximum recommended temperature for occupied instructional areas. (Thermal comfort criteria according to ASHRAE.	x		246-366-090 ASHRAE 55-1992	x
F 009 S U ☐ ☐	School buildings should have baseline profiles established for key IAQ indicators including temperature, humidity, air flow rate and suspect source contaminants e.g., pollen, dust, mold, formalhyde, VOC's (volatile organic compounds) radon, etc. This baseline data will assist in finding problems when IAQ complaints arise.	x		OSPI and DOH	
F 010 S U ☐ ☐	Walk-off mats should be placed at all entrances to the building. They should be long and deep enough to thoroughly clean off moisture and debris from modern deep-tread footwear. Mats should have suspension loops so they can be taken outside and hung-up and hosed-off as needed.	x		OSPI and DOH	x
F 011 S U ☐ ☐	It is recommended that all school vacuum cleaners include HEPA filtration to effectively capture dirt and dust particles (and all other asthma triggers such as pollen) and avoid redistributing them into the air.	x		EPA	
F 012 S U ☐ ☐	All rooms used by students or staff shall be kept reasonably free of all objectionable odor, excessive heat, or condensation.		x	246-366-080	
F 012a S U ☐ ☐	Upholstered furniture such as couches and overstuffed chairs should be avoided in schools since they often harbor dirt, dust, mites and other common asthma triggers.	x		DOH	

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F. INDOOR AIR QUALITY

		Required	Recommended	WAC or Other Code Reference	Plans Review
F 013 S ☐ U ☐	Ozone generators used for air cleaning should not be used in occupied areas. When used in unoccupied areas, these areas should be completely ventilated to remove the ozone prior to occupancy.	x		EPA OSPI and DOH	
F 014 S n U a	NOTE: A building commissioning report on all newly constructed school buildings should document outside air volumes meeting 15-20 cubic feet per minute (cfm) per occupant.	x		OSPI and DOH	x
F 015 S n U a	NOTE: The Environmental Protection Agency (EPA) published "Building Air Quality" in December 1991. It is a guide for building owners and facility managers to diagnose, mitigate and prevent IAQ problems.			EPA	x
F 016 S n U a	NOTE: Information on heating, ventilation and air conditioning (HVAC) operations and maintenance is included in EPA's "Building Air Quality" along with appendices on IAQ measurements, forms and IAQ checklists. This manual is a 'must' for school IAQ maintenance staff. www.epa.gov/iaq/largebldgs/baq_page.htm			EPA	x
F 017 S n U a	NOTE: The Environmental Protection Agency published the "IAQ, Tools For Schools, Action Kit" in September 1995. It is a guide for IAQ coordinators, health officers, teachers, administrators and school support staff. It includes an IAQ problem solving wheel, coordinators guide, forms, checklists, and a short video tape.	x		EPA	
F 018 S n U a	NOTE: DOH and OSPI published the "School IAQ Best Management Practices Manual" (IAQ-BMP)in February 1995. This guide should be consulted by school staff, designers, teachers, government agencies, and parents. The manual can be downloaded from the DOH web site at: www.doh.wa.gov/ehp/ts/faq.htm	x		OSPI and DOH	
F 019 S n U a	NOTE: EPA has recently published a new guide for IAQ in new school buildings titled "IAQ Design Tools for Schools." www.epa.gov/iaq/schooldesign/start.html			EPA	
F 020 S n U a	NOTE: The Department of Labor & Industries WISHA Division has published Washington Regional Directive (WRD) #10.10. This document directs WISHA inspectors when they are investigating IAQ complaints. This document can be downloaded from L&I's website at: http://www.lni.wa.gov/wisha/regs/wrds/wrd1010.htm	x		WISHA	x
F 021 S n U a	NOTE: Washington State University's Cooperative Extension Energy Program publishes an electronic newsletter relating to Indoor Air Quality issues in northwest schools at: http://www.energy.wsu.edu/buildings/IAQ.htm	x		WSU Energy Extension	
F 022 S n U a	NOTE: EPA's website on "Asthma and the Indoor Environment" provides valuable information relating to IAQ issues in schools at: http://www.epa.gov/iaq/asthma/index.html	x		OSPI and DOH	x

G. HVAC - PREVENTATIVE MAINTENANCE

		Recommended	Required	WAC or Other Code Reference	Plans Review
G 001 S U ☐ ☐	All occupied areas of the facility shall be heated to maintain a minimum temperature of 65 degrees F except for gymnasiums which shall be a minimum of 60 degrees F.		x	246-366-090	x
G 002 S U ☐ ☐	Heating, ventilating, and/or air conditioning systems shall be equipped with automatic room temperature controls. Computerized systems that control each room from a remote location are acceptable.		x	246-366-100	x
G 003 S U ☐ ☐	Change all return air and outside air intake filters on a regular basis. Ensure tight fit around filters– no air by-passes. Date and initial the filters when changed.	x		OSPI and DOH	
G 004 S U ☐ ☐	Pressure wash all heating and cooling coils using an approved coil cleaner. Make sure not to exceed the coil manufactures' pressure recommendations for cleaning coils.	x		OSPI and DOH	
G 005 S U ☐ ☐	Clean and sanitize all condensate drain fans in all fan coils and large air handling units. Ensure pans are sloped to drain - avoid standing or stagnant pool of moisture.	x		OSPI and DOH	
G 006 S U ☐ ☐	Clean and sanitize all "squirrel" cage assemblies. Check bearings. Check any excess vibration.	x		OSPI and DOH	
G 007 S U ☐ ☐	Inspect the damper linkage on all return and outside damper assemblies. Ensure that linkage and damper blades move freely, i.e., without restriction.	x		OSPI and DOH	
G 008 S U ☐ ☐	Clean and sanitize all intake grilles, screens, and connecting ducts. Be sure to wash these thoroughly . Ensure intake ducts are clean and do not allow water intrusion.	x		OSPI and DOH	
G 009 S U ☐ ☐	Adjust damper controls so that they always maintain minimum outside quantities–adjust as necessary. This is generally recommended in the orginal equipment mechanical operations and maintenance booklets.	x		OSPI and DOH	
G 010 S U ☐ ☐	Calibrate carbon dioxide sensors used for demand controlled ventilation systems. Ensure these sensors are located correctly and controllers are functioning properly.	x		OSPI and DOH	
G 011 S U ☐ ☐	Ensure damper controls provide for proper building operating pressures (positive building pressure relative to outside is typical).	x		OSPI and DOH	x
G 012 S U ☐ ☐	Ensure those rooms and/or zones containing indoor air contaminants are maintained at lower pressure than surrounding room or zones for contaminant containment e.g. restrooms, kitchens, science labs and storerooms, custodial storerooms, etc. Ensure exhaust fans are working effectively and are controlled for proper run times.	x		OSPI and DOH	x
G 013 S U ☐ ☐	Ensure HVAC exhaust is not re-entrained into building or incoming air handling systems.	x		OSPI and DOH	x

S=Satisfactory
U=Unsatisfactory

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G. HVAC - PREVENTATIVE MAINTENANCE

		Required	Recommended	WAC or Other Code Reference	Plans Review
G 014 S ☐ U ☐	Check all flue vents for leakage. Ensure no re-entrainment of flue gases back into building or air handlers.	x		OSPI and DOH	x
G 015 S ☐ U ☐	Ensure all outside air intakes are free of contaminates from sources such as garbage dumpsters, vehicle exhaust, shop and laboratory emissions, boiler and generator exhaust, etc.	x		OSPI and DOH	
G 016 S ☐ U ☐	Gas fired roof-top units– RTU's a. Clean and sanitize coils b. Clean and sanitize drain pans c. Test heat exchangers for any cracks. Use a smoke test or use an instrument that measures carbon monoxide.	x		OSPI and DOH	x
G 017 S ☐ U ☐	Check combustion air and pressures in zones with atmospheric vented combustion equipment to ensure no spillage or back drafting. Clean combustion air intake screens.	x		OSPI and DOH	x
G 018 S ☐ U ☐	Adjust economizer controls for proper operation. Make sure all enthalpy (thermodynamic) controls are operational. Check dampers and linkage for proper operation.	x		OSPI and DOH	x
G 019 S ☐ U ☐	Check boiler/furnace efficiency by measuring the carbon monoxide (CO) level in the exhaust stack emissions.				
G 020 S ☐ U ☐	Install and check carbon monoxide detectors/alarms in mechanical rooms and occupied zones for leakage/re-entrainment of carbon monoxide (CO) from operating equipment; e.g., boiler, furnace, water heater, generator, etc.	x		OSPI and DOH	x
G 021 S ☐ U ☐	HVAC system maintenance and operation should be managed using a checklist. A good example is the "long checklist" in the EPA "Building Air Quality" guide or the "ventilation" checklist in the EPA "Tools for Schools" kit.	x		OSPI and DOH	x

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H. SOUND CONTROL

		Recommended	Required	WAC or Other Code Reference	Plans Review
H 001 S ☐ U ☐	In new construction, the actual background noise at any student location within the classroom shall not exceed 45 decibels (dBA) for a period of 30 seconds or more. Testing shall be done when all components of the ventilation system are in operation.		x	246-366-110(2) ROW 19.27	x
H 002 S ☐ U ☐	Existing portables built prior to 1/1/90 are exempt from noise level requirements when: (1) there have been no changes that would have increased noise levels; (2) the portable was previously used as a classroom; (3) the portable was previously owned by the district; and (4) the portable meets all site requirements.		x	246-366-110(3)	x
H 003 S ☐ U ☐	The maximum ambient noise level in industrial arts, CTE (voc-ed) and trade classrooms constructed after 1/1/90 shall not exceed 65 dBA when all fume hoods and dust exhaust systems are operating. Testing shall be done when room is unoccupied.		x	246-366-110(4)	x
H 004 S ☐ U ☐	The noise exposure for students in CTE (voc-ed) and music areas shall not exceed the L & I WISHA noise level rules. No person shall be exposed to sustained sound levels equal to or greater than 115 dBA for 1 second or longer, or to impact / impulse noise over 140 dBA for less than one second.		x	246-366-110(5) WAC 296-62-090	x
H 005 S ☐ U ☐	When noise exposure exceeds the L & I WISHA maximum levels in any student or staff occupied area, and engineering methods cannot reduce the noise levels to a permissible level, approved hearing protection shall be provided and used. Maximum sound exposure levels can be found in L & I WISHA rules.		x	246-366-110(5) Table 1 246-366-110 (6) WAC 296-62-090	
H 006 S ☐ U ☐	The employer shall administer a continuing, effective, hearing conservation program, as described in WAC 296-62-Part K whenever employee noise exposure equals or exceeds an 8-hour Time-Weighted Average (TWA) sound level of 85 dBA measured on the A-scale weighting at slow-response, or a noise dose of fifty percent.		x	296-62-090	
H 007 S ☐ U ☐	The design of classrooms should take into account potential issues with speech interference levels when having more than one instructional class in any single area; e.g., open concept classrooms, multi-purpose areas, gymnasiums, music rooms, etc.	x		OSPI	x
H 007a S ☐ U ☐ n a	NOTE: Wireless microphone systems for classroom areas are available that provide teachers the ability to be speak and be heard over large groups and still avoid damage to their vocal chords.	x		OSPI	x

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I. LIGHTING

		Recommended	Required	WAC or Other Code Reference	Plans Review
I 001 S U ☐ ☐	Minimum light intensity of 10 foot candles, from general, task, or natural lighting shall be provided in non-instructional areas including auditoriums, lunchrooms, assembly areas, toilet and store rooms, corridors, and stairs.		x	246-366-120(1)	x
I 002 S U ☐ ☐	Minimum light intensity of 20 foot candles, from general, task, or natural lighting shall be provided in gymnasiums including main and auxiliary spaces, and shower and locker rooms.		x	246-366-120(1)	x
I 003 S U ☐ ☐	Minimum light intensity of 30 foot candles, from general, task, or natural lighting shall be provided in kitchen areas including food storage and preparation rooms.		x	246-366-120(1)	x
I 004 S U ☐ ☐	Minimum light intensity of 30 foot candles, from general, task, or natural lighting shall be provided in instructional areas including study halls, lecture rooms, and libraries. In rooms with computers, or during audio-visual presentations, lighting may be reduced.		x	246-366-120(1)	x
I 005 S U ☐ ☐	Minimum light intensity of 50 foot candles, from general, task or natural lighting shall be provided in special instructional areas including sewing rooms, laboratories (including chemical storage areas), CTE (voc-ed) trade, industrial shops, drafting rooms, and visual & performing arts rooms.		x	246-366-120(1)	x
I 006 S U ☐ ☐	Any time a building is occupied, the path of egress shall be illuminated at an intensity of not less than 1 foot candle at the floor level. (Exception: 0.2 foot candle during a performance in a theater or auditorium if it will be automatically restored upon activation of the fire alarm system.) Emergency (exit) lighting may never be turned off.		x	UBC 1003.2.9.1	x
I 007 S U ☐ ☐	Excessive brightness and glare shall be controlled in instructional areas. Surface contrasts and glare shall not cause excessive eye accommodation or eye strain problems.		x	246-366-120(2)	x
I 008 S U ☐ ☐	Lighting shall be provided in a manner which minimizes shadows and other lighting deficiencies on work and teaching surfaces.		x	246-366-120(3)	x
I 009 S U n a	NOTE: The Lighting Design Lab is an excellent resource for all lighting issues. See website: www.lightingdesignlab.com Another good resource is the Illuminating Engineering Society of America. Website: http://www.iesna.org/	x		OSPI and DOH	x
I 010 S U ☐ ☐	Inspect all fluorescent light ballasts for PCB content, being certain to wear rubber gloves and goggles. Identify PCB ballasts for future replacement. Almost all fluorescent light fixtures made before July 1979 contain small amounts of highly concentrated PCB's in their ballasts. that can leak PCB contaminated oil. See website: www.epa.gov/pcb	x		EPA	
I 011 S U ☐ ☐	Clean all PCB leakage, including any oil-like film, and replace all leaking ballasts. Dispose of leaking ballasts and cleaning materials in accord with EPA and DOE regulations. Wearing gloves and goggles is important for personal protection as PCB's are absorbed through the skin. Call 1-800-424-4372 or see website: www.epa.gov/r10earth/pcb.htm		x	40 CFR Part 761	
I 012 S U ☐ ☐	Under the Federal Toxic Substances Control Act, a leaking ballast containing PCB's must be packaged in a container approved for PCB disposal, marked "contains PCB's" and have an accompanying manifest. It must be shipped by an authorized PCB transporter to a licensed PCB disposal facility. See web: www.epa.gov/r10earth/pcb.htm		x	TSCA 40 CFR Part 761	

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J. FOOD SERVICE

		Recommended	Required	WAC or Other Code Reference	Plans Review
J 001 S ☐ U ☐	Food storage, preparation, and service facilities shall be maintained and operated in accordance with Washington State Board of Health food regulations.		x	246-366-130 246-215 246-217	x
J 002 S ☐ U ☐	Food transported between central kitchens and schools shall be kept at required temperatures, in tightly covered food containers, and shall be transported in enclosed vehicles.		x	246-366-130 246-366-070(3)(f)	
J 003 S ☐ U ☐	Toxic materials, including bleach, ammonia, rodent poison, bug spray, and cleaning supplies, shall not be stored with dry food items. (See Pesticide Use in Schools section).		x	EPA & FIFRA 246-215-140 16-228-1200(7) 16-228-1220(6)(7)	x
J 004 S ☐ U ☐	Clean and sanitize equipment, using the heat method or chemical method, during each step of the food production process to help prevent cross-contamination. (See "Serving It Safe," Chapter 4, pgs 96, 97.)		x	246-215-100	
J 005 S ☐ U ☐	Chill all cooked leftovers to an internal temperature below 40 degrees F to avoid potentially hazardous conditions. Place hot foods into shallow pans, food depth less than two (2) inches, then place directly into refrigerator and allow to cool uncovered. Check temperature regularly.		x	246-215-070(6)	
J 006 S ☐ U ☐	Establish a Hazard Analysis Critical Control Point (HACCP) food safety system that focuses on food to ensure safe food for students and staff. (See HACCP for Child Nutrition Programs: "Building on the Basics" available from OSPI, Nutrition Services).	x		OSPI and DOH	
J 007 S ☐ U ☐	Always wash hands with soap and warm water for at least 20 seconds before serving food. Avoid handling ready-to-eat foods with bare hands by using appropriate utensils or single-use gloves. (See "Serving It Safe" page 133 available from OSPI, Nutrition Services).		x	246-215-080 246-215-030	
J 008 S ☐ U ☐	To avoid contamination, always wash hands, utensils, and other food-contact surfaces *after* contact with raw meat or poultry and *before* handling ready-to-eat food. (See "Serving It Safe" page 133 available from OSPI, Nutrition Services).		x	246-215-050 246-215-080	
J 009 S ☐ U ☐	Establish procedures in the school kitchen to ensure that Child Nutrition Program Personnel learn to prevent unsafe acts and correct unsafe conditions. See "Working Safe: Accident Prevention in Child Nutrition Programs" available from OSPI, Nutrition Services).	x		OSPI and DOH	
J 010 S ☐ U ☐	Develop a system to record food temperatures when it comes from the oven, stove, or refrigerator to the holding containers, when they are placed on the serving line, and after the last customer is served.	x		OSPI and DOH	
J 011 S ☐ U ☐	If a district transports or receives food to, or from, another site, take the temperature of food when it leaves the preparation site and when it arrives at the serving site. Keep daily temperature records on file for the school year. Record any corrective actions taken when food is at improper temperatures.	x		OSPI and DOH	
J 012 S ☐ U ☐	Undercooked, raw or unpasteurized meats, eggs, aquatic foods or juices should not be served.		x	246-215-040(10)	
J 013 S ☐ U ☐	Sufficient equipment shall be provided to rapidly cool, reheat, cook, hot hold, cold hold, or process foods.		x	246-215-050	x

J. FOOD SERVICE

		Recommended	Required	WAC or Other Code Reference	Plans Review
J 014 S U ☐ ☐	Maintain the internal temperature of food at 45 degrees F or below, or 140 degrees F or above, at all times except during necessary preparation.		x	246-215-050(3)(a)	
J 015 S U ☐ ☐	All fruits and vegetables served raw shall be thoroughly washed under running water with agitation. All produce washing shall be performed in a clean and sanitized food preparation sink.		x	WAC 246-215-050(3)(e); WAC 246-215-100	x
J 016 S U ☐ ☐	Ensure that outside food vendors (e.g., a local pizza supplier or any local restaurant) are permitted by and in good standing with the local health jurisdiction.		x	246-215-020(1)!a)	
J 017 S U ☐ ☐	A metal stem-type thermometer, digital thermometer, or thermocouple, shall be used to test foods. The thermometer shall be checked for accuracy on a regular basis.		x	246-215-070	
J 018 S U ☐ ☐	Food and beverage worker service permits are current for all food workers.		x	246-215-080(6)	
J 019 S U ☐ ☐	Hand washing sinks shall be located to permit convenient use by all food workers in food preparation, food service, and utensil washing areas and in, or immediately adjacent to, toilet facilities. Hand washing sinks shall be provided with hot water at 100 degrees F to 120 degrees F and are supplied with soap and paper towels.		x	246-215-120(9)	x
J 020 S U ☐ ☐	Ill workers shall be prohibited from handling food.		x	246-215-260(3)	
J 021 S U ☐ ☐	Store raw meats and seafood below and away from other foods.		x	246-215-030(1)(B)(h)	

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K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 001 S ☐ U ☐	Science laboratories shall have an inventory list of all chemicals. This list must be updated periodically. (Recommendation is annually or more frequently.)		x	296-800-17005 296-800-17010	
K 002 S ☐ U ☐	Science laboratories shall have a written Chemical Hygiene Plan that is available to all students and staff members. It shall be reviewed annually and updated when necessary. (New science teachers shall review the CHP as part of their Employee Safety Orientation.)		x	296-62-40009	
K 003 S ☐ U ☐	Emergency eyewash and shower stations shall be provided as required by L & I's WISHA rules and shall be located within 50 feet or ten seconds walking distance from all lab science work stations.		x	296-800-15030 ANSI Z 358.1-1998	x
K 004 S ☐ U ☐	Emergency showers must deliver water to cascade over the user's entire body at a minimum rate of 20 gallons (75 liters) per minute for 15 minutes or more.		x	296-800-15030 ANSI Z 358.1-1998	x
K 005 S ☐ U ☐	Eye-wash stations and emergency showers shall be handicap accessible and operable "hands-free" so that the user can hold both eyes open. Hand-held showers and eye-wash equipment do not meet current L & I WISHA rules (except as auxiliary or extra protection).		x	296-800-15030 ANSI Z 358.1-1998 ADA	x
K 006 S ☐ U ☐	Eye wash stations shall provide 0.4 gallons (1.5 liters) per minute for 15 minutes or more. In some areas with high water pressure, flow regulators may be required on the eye wash stations.		x	296-800-15030 ANSI Z 358.1-1998 ADA	x
K 007 S ☐ U ☐	Emergency showers and eye wash units shall be inspected and tested for proper operation annually. Plumbed emergency eye washes must be activated weekly. Written documentation of tests shall be maintained on site.		x	296-800-15035	
K 008 S ☐ U ☐	In chemical laboratories, chemical storage rooms, and photography darkrooms, an increased rate of ventilation is required by the WA Ventilation Code, i.e., 20 cfm per occupant.		x	296-62-11005 WAC 51-13, Table 3-4	x
K 009 S ☐ U ☐	A building commissioning report which documents outside air volumes meeting 15-20 cubic feet per minute (cfm) per occupant is recommended. (See Indoor Air Quality Section).		x	51-13 Sec.304	x
K 010 S ☐ U ☐	There shall be an on-demand, mechanical ventilation system providing additional air exchange as required by WISHA and the WA ventilation Code for chemical areas such as photo darkrooms, storerooms and chemistry labs (this is in addition to the building HVAC system). (See Indoor Air Quality Section).		x	296-62-11005 296-62-075 296-62-40025 WAC 51-13	x
K 011 S ☐ U ☐	All chemical fumes and vapors shall vent directly to the outside without re-entrainment into the building or the building HVAC system. (See Indoor Air Quality Section).		x	296-62-11007	x
K 012 S ☐ U ☐	Make-up air must be provided to laboratories in amounts equal to exhaust air when the ventilation rate is increased. (See Indoor Air Quality Section).		x	296-62-11009	x
K 013 S ☐ U ☐	No unapproved heating devices are allowed in laboratories or storerooms. Portable electric stoves are not approved heating devices for laboratories and storerooms.		x	296-24-985 UFC	x

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K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 014 S ☐ U ☐	Electrical receptacles shall be properly grounded. Ground fault interrupter (GFI) devices shall be provided on all electrical receptacles within six (6) feet of sinks and other grounding sources.		x	296-24-95607 NEC NFPA 45	x
K 015 S ☐ U ☐	All electrical equipment shall be properly grounded. Portable electrical equipment shall be double-insulated or provided with a UL-listed ground prong.		x	296-800-28040 296-24-95607 296-24-95609 NEC	x
K 016 S ☐ U ☐	Electrical extension cords shall be UL-listed, and the wire size shall be appropriate for the applied use.		x	296-800-28030 296-24-95609 UFC NEC	
K 017 S ☐ U ☐	There shall be at least one demonstration fume hood for each laboratory where hazardous chemicals are used. It is recommended that demonstration hoods be installed away from walls so students can view demonstrations from three sides.		x	296-62-40009 (3)(c)	x
K 018 S ☐ U ☐	Fume hoods in school buildings must comply with AHERA asbestos regulations.		x	AHERA	x
K 019 S ☐ U ☐	Chemicals should not be stored in fume hoods except where the hood has been specifically built with a ventilated storage area. Chemicals should not be stored in the demonstration or working area of the hood.	x		296-62-40025 (3)(d)(ii (E)	
K 020 S ☐ U ☐	All fume hoods shall exhaust directly to the outside, away from all occupied areas and air intakes in order to prevent exhaust from reentering the building.		x	296-62-11007 UMC 296-62-40025	x
K 021 S ☐ U ☐	Fume hood air velocity should be 60-125 linear feet per minute (lfm) checked quarterly with a velocity meter. Written documentation of all tests should be maintained on site. The exhaust capture path should direct contaminants away from the user. With the sash raised to 12 inches, the air flow should measure at least 60 lfm.	x		ASHRAE 10-1995 ANSI Z 9.5 296-62-40025 (3) (c) (iv) (G)(H)	x
K 022 S ☐ U ☐	Fume hood use is required when using known or suspected carcinogens, mutagens, teratogens, chemicals which are fast acting/highly toxic, listed as toxic via skin absorption or inhalation, or chemicals with a TLV or PEL of 50 ppm or less. This determination shall be based on information provided by material safety data sheets.		x	296-62-4005 296-62-4009 296-62-40025 (3)(e)(i)(AA)	x
K 023 S ☐ U ☐	All electrical devices used in the fume hood such as switches, lights, motors, etc., shall be explosion-proof.		x	296-24-95613 NEC	x
K 024 S ☐ U ☐	The chemical hygiene officer (e.g., science department chairperson or science teacher) shall maintain a written operations and maintenance program for laboratory fume hoods and other mechanical equipment in science laboratories.		x	296-62-40009(3)(c) 296-62-40009(3)(h) 296-62-40025 (3)(c)(iv)(H)	
K 025 S ☐ U ☐	Directional signs should be provided to the electricity and gas master shut-offs as well as other safety items in all laboratory areas.	x		296-62-40025(3) (d)(viii)	x
K 026 S ☐ U ☐	Invisible hazards (radiation, chemical, electrical, laser, and heat) shall be posted with warning signs or symbols when present.		x	296-24-140 296-62- 09004(6) 296-24-14001/09 296-62-40025	x

K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 027 S ☐ U ☐	Food items (for human consumption) should not be permitted in chemical laboratories or storerooms (including lab refrigerators). No eating, drinking or gum chewing should be allowed in labs to prevent poisoning through ingestion. All food items to be used for experiments should be labeled "Not for human consumption."	x		296-62-40025(3)(e) (I-J-K)	
K 028 S ☐ U ☐	Chemical storerooms shall be lockable and inaccessible to unsupervised students, and have self-closing doors per WISHA, DOH, and State Fire Code (UFC) requirements for chemical laboratories and chemical storerooms. Doors shall have a one-hour fire rating per UFC (or greater if required by local fire code).		x	296-62-40009 296-62-40025 UFC	x
K 029 S ☐ U ☐	Chemical storerooms should be large enough for adequate and proper storage of chemicals. Storage areas should be maintained in a neat, organized, and clean manner with chemicals stored compatibly.	x		296-62-40025	x
K 030 S ☐ U ☐	Chemical storerooms should have sturdy, well-supported shelves secured to the walls. All shelves should have "earthquake" (or "spill-prevention") lips on all shelf edges. Doors that close on cabinets do not replace the need for spill-containment "lips" on the front edge of shelves.	x		296-62-40025	x
K 031 S ☐ U ☐	Chemical storerooms should have all hazardous chemicals stored at or below eye level (typically below 5' 6") with heavy objects stored on lower shelves. Higher shelves may be used for other items; e.g., glassware, equipment, paper goods, etc.	x		296-62-40025	x
K 032 S ☐ U ☐	Chemical storage areas should be kept cool (between 55 and 80 degrees F) and dry (relative humidity between 30 and 60%).	x		296-62-40025	
K 033 S ☐ U ☐	Chemicals shall be stored according to their properties, not alphabetically (i.e., flammables, health hazard, reactive, oxidizer, radioactive, etc.).		x	296-62-40009 296-62-40025	
K 034 S ☐ U ☐	Chemicals should be organized and stored according to a recognizable, safe system (e.g., Flinn, Baker, Sargent-Welch, etc.) to segregate incompatibles. Labels should clearly denote the contents of each container and the date received. Chemicals should also have the four color NFPA diamond on the container for emergency responders.		x	296-62-40025	x
K 035 S ☐ U ☐	Chemicals marked only with teacher codes (e.g., A, B, C, D), for student testing/analysis, should not be allowed in permanent storage. Mix only enough for one day's classes and then restock or dispose. All unmarked chemicals should be labeled with container contents and re-shelved, or disposed of, in accordance with WAC requirements.		x	296-800-17025 296-62-40025	
K 036 S ☐ U ☐	All flammables shall be stored in approved flammable storage cabinets with self-closing doors. Flammables (red labels) and acids and bases (white labels), shall be stored separately.		x	296-24-33009	x
K 037 S ☐ U ☐	The chemicals in Table 1 of Appendix D to this Guide are a safety hazard and may not be used in K-12 schools according to OSPI and DOH. If found, they must be removed from the school by qualified personnel and properly disposed of in accordance with the school's chemical hygiene plan and DOE regulations.		x	296-62-40009 246-366-140 OSPI-DOH	
K 038 S ☐ U ☐	The chemicals in Table 2 of Appendix D to this Guide have been determined by DOH and OSPI as suitable in small quantity and in advanced classes in senior high laboratories. No more than one pound of each chemical may be stored on site in any case.	x		296-62-40009 246-366-140	
K 039 S ☐ U ☐	Chemicals should be purchased in the smallest commercially available container that will meet the school's needs for approximately one academic year. All chemicals should be dated upon receipt into the lab or storage area.	x		296-62-40025(3)(d) (11)(A-E)	

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K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 040 S ☐ U ☐	Chemicals should be dispensed to students in the minimum amount necessary for immediate use.	x		296-62-40025(3)(d)(11)(A-E)	
K 041 S ☐ U ☐	There should be a separate storage shelf, cabinet or area for water reactive compounds (e.g., metallic sodium, potassium or calcium) and organic peroxides.	x		296-62-40025	
K 042 S ☐ U ☐	All acids should be stored in approved acid cabinets. Non-compatible acids should be stored separately (e.g., nitric, acetic). Non-metal cabinets are recommended to prevent corrosion of the cabinet.	x		296-62-40025	
K 043 S ☐ U ☐	Only explosion-proof refrigerators shall be used to store volatile chemicals. Non explosion-proof refrigerators or other electrical devices shall not be located in areas with vaporous or flammable chemicals.		x	UFC Art. 79	x
K 044 S ☐ U ☐	Instructors shall wear personal protective equipment (PPE) when using corrosive, toxic, reactive, or irritating chemicals and during hazardous activities as required by L & I WISHA rules.		x	296-800-160 296-62-40025(3)(d)	
K 045 S ☐ U ☐	Eye protection, safety glasses, and face shields shall meet the requirements of the American National Standards Institute (ANSI Z.87.1). Students shall wear personal protective equipment (PPE) when using corrosive, toxic, reactive, or irritating chemicals and during hazardous activities.		x	296-800-160 296-62-40009	
K 046 S ☐ U ☐	A non-asbestos fire blanket should be provided, identified, readily available, and visible to students and staff.	x		296-62-40025	
K 047 S ☐ U ☐	Safety shields on the demonstration table should be used for demonstrations wherever the possibility of explosion exists.	x		296-62-40025	
K 048 S ☐ U ☐	Jewelry should not be worn if personal safety would be jeopardized.	x		296-62-40025	
K 049 S ☐ U ☐	Loose hair should be restrained so that personal safety is not jeopardized.	x		296-62-40025(e)(i)(P)	
K 050 S ☐ U ☐	All laboratories should have a written clean-up plan for spills. All laboratories should have a spill clean-up kit or materials for absorbing spills identified and readily available to students and staff.	x		296-62-40025(3)(d)(ix)(C)	
K 051 S ☐ U ☐	Waste disposal shall be disposed in accordance with DOE regulations. No waste or old chemicals shall be poured down the drain or put in the solid waste without approval from local sewer or solid waste authorities.		x	173-303 296-62-40025(3)(e)(i)(EE-GG)	x
K 052 S ☐ U ☐	A written and documented lab safety orientation that includes components of the Chemical Hygiene Plan shall be provided for all staff and students.		x	296-800-17030 296-62-40011	

K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 053 S U ☐ ☐	A telephone for reporting emergencies shall be located in or near the laboratory. Emergency telephone numbers shall be readily accessible. Staff shall be trained in emergency procedures.		x	RCW 28A.335.320 180-41-035(3) 296-62-40025(3)(d)(viii)(A)	x
K 054 S U ☐ ☐	Lab floor plans shall be kept in the school office. A listing of exits, chemicals, and storage place of chemicals shall be included for use by emergency responders. Exits shall be clearly marked and free of obstruction.		x	296-800-310 296-62-40025	x
K 055 S U ☐ ☐	Fire extinguishers shall be provided (ABC type). Fire extinguishers shall be identified and readily accessible to staff and students. The instructor shall be trained in fire extinguisher use. Demonstration or hands-on training shall be provided during safety orientation.		x	296-800-30010 296-62-40025(3)(d)(vi)(D)	x
K 056 S U ☐ ☐	A fire alarm system shall be provided. Alarm pull stations shall be identified and readily accessible to staff and students.		x	296-800-31070 296-62-40025(3)(d)(ix)(B)	x
K 057 S U ☐ ☐	Fire retardant lab coats shall be used as required by L & I WISHA PPE rules when appropriate for a specific project or demonstration.		x	296-800-160	
K 058 S U ☐ ☐	Formaldehyde is not allowed in K-12 schools. Biology specimens stored in formaldehyde shall be decanted and preserved in a formalhyde-free alternative; e.g., Flinnsafe, Carosafe, propylene glycol,or alcohol solution. Formaldehyde disposal shall adhere to DOE regulations.		x	296-62-07540 OSPI-DOH	
K 059 S U ☐ ☐	Biology specimens shall be stored in sealed containers to prevent evaporation of liquid contents and resulting IAQ issues. Specimens preserved in hazardous or dangerous chemicals, e.g., alcohol, shall be stored in locked cabinets.		x	296-62-080 Part J	
K 060 S U ☐ ☐	Glassware should be free of all cracks, chips, sharp edges and other defects.	x		296-62-40025(3)(e)(i)(L)	
K 061 S U ☐ ☐	Material Safety Data Sheets (MSDS) are maintained and readily available for all chemicals in the lab.		x	296-800-17035 296-62-40011 296-62-40015	
K 062 S U ☐ ☐	A first aid kit shall be provided and adequately stocked in the lab area.		x	296-800-15020	
K 063 S U ☐ ☐	Containers of non-hazardous substances (e.g., distilled water) must be labeled to avoid confusion. (ALL CONTAINERS MUST BE LABELED REGARDLESS OF THE CONTENTS).		x	296-800-17025	
K 064 S U ☐ ☐	Appropriate gloves, matched to the hazard, must be provided and worn when the potential for hand contact with chemicals exists.		x	296-800-16065 296-62-40025(3)(e)(i)(S)	
K 065 S U ☐ ☐	Closed toe shoes must be worn at all times in the laboratory. (No sandals or perforated shoes.)		x	296-800-16060 296-62-40025(3)(e)(i)(P)	

S=Satisfactory
U=Unsatisfactory

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K. SCIENCE CLASSROOMS AND LABORATORIES

		Recommended	Required	WAC or Other Code Reference	Plans Review
K 066 S ☐ U ☐	A sink with soap and paper towels must be available in the lab for hand washing.		x	296-800-23025 296-62-40025(3)(e)(i)(M)	
K 067 S ☐ U ☐	Electrical Panel circuit breaker switches for the Lab must be accessible and the breakers labeled. A clear and unobstructed means of access with a minimum width of 30 inches and a minimum height of 78 inches shall be maintained from the operating face of an electrical panel board.		x	296-800-28022 296-800-28025 UFC 8509	
K 068 S ☐ U ☐	All mercury barometers should be disposed of in compliance with EPA and DOE regulations. The "Eco-Cell" barometer a mercury-free barometer that will visually communicate the chemistry lesson of barometric pressure. Information is available at: http://www.barometers.com/eco-cell.htm	x		EPA and DOE	
K 069 S ☐ U ☐	Ethidium Bromide, though not classified as a hazardous material, can be very hazardous if poured down a sink or placed in the trash stream. Disposal practices for this chemical should be the same as for hazardous materials when concentration is above 0.1 %. Check with local or state agencies for disposal of aqueous and solvent solutions.	x		DOH and DOE	
K 070 S [n] U [a]	NOTE: Batelle Research Center operates a website to assist schools with laboratory waste minimization and pollution prevention at: http://www.seattle.battelle.org/services/e&s/P2LabMan/index2.htm				
K 071 S [n] U [a]	NOTE: King County operates a website for teachers and students relating to Laboratory Safety in Schools at: http://www.metrokc.gov/hazwaste/rehab/labs.htm				
K 072 S [n] U [a]	NOTE: Vermont operates a website for school administrators and teachers titled "School Science Lab Cleanout Project." It includes a sample Chemical Management Plan, Chemical Inventory Guidelines with "excel" inventory forms and several sample plans and forms at: www.anr.state.vt.us/dec/ead/mercury/SchoolCleanout/cleanout.htm				
K 073 S [n] U [a]	NOTE: The National Science Education Leadership Association (NSELA) operates a website with many aides for school science teachers at: http://www.nsela.org/index.htm. See the article "Hazardous Chemical Removal" by Cliff Schrader at: http://www.nsela.org/safesci6.htm				

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L. CAREER & TECHNOLOGY EDUCATION

		Required	Recommended	WAC or Other Code Reference	Plans Review
L 001 S U ☐ ☐	Reference the most current edition of the "Safety Guide for Career and Technology Education" (CTE) published by OSPI. This manual provides instruction and checklists for vocational education curriculum areas. It can be downloaded from: http://www.k12.wa.us/CareerTechEd/techprep/default.asp		x	OSPI and DOH	
L 002 S U ☐ ☐	Based on OSPI's Safety Guide for CTE and good safety practice, school shop teachers should pay close attention to students' personal protective equipment needs. Student-oriented safety training in vocational and visual arts hazards should be given, tested, and documented.		x	OSPI and DOH 296-800-160	
L 003 S U ☐ ☐	Floors shall be clean and kept free of oil and other slippery substances. Non-skid (non-slip) surfacing shall be used within the operator use zone of all stationary equipment. See OSPI's "Safety Guide for CTE."		x	296-800-220 296-24-15005	x
L 004 S U ☐ ☐	Floors shall be free of obstacles so there are no slip, trip, or fall hazards. Hazard areas shall be plainly marked. In metal and wood shops, areas around equipment shall be marked with a two-foot safety zone. Projections shall be plainly marked.		x	296-800-220	x
L 005 S U ☐ ☐	All power tools shall be safe, properly labeled and protected with correct belts, guards, and electrical connections. All hand tools must be U.L. listed.		x	296-24-65501 & 15001 & 16501	
L 006 S U ☐ ☐	Machine guarding shall meet WAC 296-24. Safety guards must be properly adjusted and functional for safe machine operation.		x	296-24-150 Part C 296-24-15001	x
L 007 S U ☐ ☐	Hand tools shall be properly maintained and kept in a safe condition.		x	296-24-65501	
L 008 S U ☐ ☐	Safety stands (jack stands) shall be available and used correctly by students and staff.		x	296-24-67005	
L 009 S U ☐ ☐	Shop safety rules shall be displayed in plain view of room occupants.		x	296-800-110	
L 010 S U ☐ ☐	General operating instructions and safety reminder signs shall be posted on or near moving machinery and shop equipment.		x	296-800-135	
L 011 S U ☐ ☐	Unstable equipment (e.g., drill presses, band saws, etc.) shall be secured to the floor or a table/stand to prevent tipping. Stand mounted equipment shall be fastened to the floor to prevent tipping.		x	296-24-15003	
L 012 S U ☐ ☐	Materials (e.g., lumber, metal, etc.) shall be stored in a manner that will prevent personal injury. Proper storage shall be provided for metal stock as required by WISHA.		x	296-800-220	x
L 013 S U ☐ ☐	All electrical panels, devices and connections shall be labeled and maintained in a safe condition. A clear and unobstructed means of access with a minimum width of 30 inches and a minimum height of 78 inches shall be maintained from the operating face of an electrical panel board.		x	296-800-28022 296-800-28025 UFC 8509	x

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L. CAREER & TECHNOLOGY EDUCATION

		Recommended	Required	WAC or Other Code Reference	Plans Review
L 014 S U ☐ ☐	Hazardous and/or combustible waste shall not be allowed to accumulate. Such waste shall be removed from the shop area and properly disposed of as required by Dept. of Ecology regulations.		x	296-155-020 173-303	x
L 015 S U ☐ ☐	Waste oil storage and disposal shall comply with DOE regulations. Oil spilled around storage barrels shall be cleaned up immediately. Containers need to be closed when not in use.		x	296-62-40009	
L 016 S U ☐ ☐	A non-asbestos fire blanket shall be provided, identified, readily available, and visible to students and staff.		x	296-62-40009	
L 017 S U ☐ ☐	Project storage shall be adequate and safe.	x		OSPI and DOH	x
L 018 S U ☐ ☐	Emergency eye wash stations shall be within 50 feet or ten seconds of all student work stations and shall provide 2.5 gpm for at least 15 minutes at 25 PSI or less. Bottled water eye wash stations do not meet the current WISHA and DOH requirements. (They may be supplementary to units meeting the above specifications.)		x	296-800-15030	x
L 019 S U ☐ ☐	All grinders shall have proper tool rests and eye safety shields.		x	296-24-078	x
L 020 S U ☐ ☐	Eye protective devices (safety glasses, goggles, full-face shields) are identified, visible, readily accessible and used by students and staff.		x	296-800-160 296-24-70003 ANSI 2.87.1	
L 021 S U ☐ ☐	Mechanical ventilation shall be provided for all arc and gas welding/cutting tables in order to prevent welding vapors from traveling through the breathing zone.		x	296-24-71503 296-24-71505	x
L 022 S U ☐ ☐	Welding curtains or shields shall be provided at booths and other welding areas.		x	296-24-69007 296-24-71501	x
L 023 S U ☐ ☐	Safety signs should be posted where needed; e.g., "turn on ventilation," "wear eye protection." L&I does not require signs; but when signs are utilized, uniform design, including wording, shape and color, are mandated.	x		296-24-135 B-2 296-24-14005 296-24-14007 296-24-14009	
L 024 S U ☐ ☐	Master shut-offs shall be provided and identified for electricity and gas in all shop areas. A shut-off for water is recommended but not required.		x	296-800-280	x
L 025 S U ☐ ☐	Compressed gas cylinders must be properly labeled, maintained, stored and secured, with caps in place, to prevent damage to the cylinder valve. Cylinder restraining devices must be adequate to prevent tipping and/or 'rocketing'. In-use cylinders must be secured either to a hand-truck or structure.		x	296-24-68201 296-24-68203	x
L 026 S U ☐ ☐	The gas welding/cutting area shall comply with State Fire Code (UFC) and WISHA requirements. Eye protection shields shall be provided.		x	296-24-680 Part I 296-24-68507	x

L. CAREER & TECHNOLOGY EDUCATION

		Recommended	Required	WAC or Other Code Reference	Plans Review
L 027 S U ☐ ☐	Approved protective equipment shall be installed in fuel-gas piping to prevent backflow of oxygen into the fuel-gas supply system, passage of a flash back into the fuel-gas supply system and/or excessive back pressure of oxygen in the fuel-gas supply system. The three functions of the protective equipment may (or may not) be combined in one device.		x	296-24-6809(3)	
L 028 S U ☐ ☐	All flammable liquids shall be stored in UFC and NFPA approved flammable storage cabinets with self-closing doors. Flammable wastes must be disposed of in approved flammable waste containers. Cabinets shall be locked or located in a locked room when not in use.		x	296-24-33009 UFC 7902.5.8	x
L 029 S U ☐ ☐	All solvents for parts cleaning shall be stored in approved containers. Class 1 flammable liquids shall not be used. Fusible links on solvent tank lids shall be in place and shall operate as designed.		x	296-24-33009 296-24-40507	x
L 030 S U ☐ ☐	Wood burning stoves shall not be used in school buildings.	x		246-366-140	x
L 031 S U ☐ ☐	Flammable finish areas and paint spray rooms shall have approved ventilation, filters, lighting, storage cabinets, and separation from other rooms.		x	296-24-370 UFC	x
L 032 S U ☐ ☐	Filters in the paint spray booth/room shall be changed or cleaned as required.		x	296-24-370 UFC	
L 033 S U ☐ ☐	Only Class 1 electrical, explosion-proof lights, fan or other electrical devices shall be allowed in flammable finish areas.		x	296-24-370 UFC	x
L 034 S U ☐ ☐	Ventilation and exhaust systems shall be installed in all shop areas in compliance with L & I WISHA rules.		x	296-62-11003	x
L 035 S U ☐ ☐	Adequate chip and sawdust collection systems shall be installed in all wood shops.		x	296-62-11003	x
L 036 S U ☐ ☐	The maximum ambient noise level in industrial arts, CTE (voc-ed) and trade classrooms constructed after 1/1/90 shall not exceed 65 dBA when all fume hoods and dust exhaust systems are operating. Testing shall be done when room is unoccupied. (See Sound Control Section).		x	246-366-110(4)	x

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M. BLOODBORNE PATHOGENS & EXPOSURE CONTROL PLAN

		Recommended	Required	WAC or Other Code Reference	Plans Review
M 001 S ☐ U ☐	The school's written Exposure Control Plan (ECP) and the WISHA Bloodborne Pathogen (BBP) standard apply to employees, including student employees and students acting in the capacity of employees.		x	392-198 296-62-08001	
M 002 S ☐ U ☐	Many ECP and BBP provisions also apply to all students. WIAA has adopted rules for interscholastic activities based on the BBP standard. This applies school-wide with particular emphasis in the athletic department.		x	WIAA	
M 003 S ☐ U ☐	The ECP shall include precautions to prevent injuries in handling needles and other sharps. Reporting procedures for needle stick and other sharps injuries and other potential exposures shall also be included. See definition of "sharps" in WISHA BBP regulation (WAC 296-62-0800).		x	392-198 296-62-08001	
M 004 S ☐ U ☐	The ECP shall address proper precautions to be taken while cleaning blood and other body fluid spills as well as laundry practices involving risk of direct exposure to body fluids.		x	392-198 296-62-08001	
M 005 S ☐ U ☐	The ECP shall address disposal and/or decontamination of potentially contaminated items.		x	392-198 296-62-08001	
M 006 S ☐ U ☐	The ECP shall address training responsibility and record keeping requirements and shall be accessible to employees. The ECP shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure.		x	392-198 296-62-05209 296-62-08001	
M 007 S ☐ U ☐	Hand washing facilities shall be readily accessible. Antiseptic hand cleansers/towelettes shall be available when hand washing facilities are not available. Hands shall be washed with soap and water following glove removal and prior to intake of food or drink.		x	392-198 296-62-08001	
M 008 S ☐ U ☐	Protective gloves (PVC or latex) and appropriate Personal Protective Equipment (PPE) shall be readily available and shall be used during exposure to potentially infectious materials. Disposable gloves shall not be reused. Hypoallergenic gloves need to be readily available for individuals who are allergic to gloves (such as latex allergies).		x	392-198 296-62-08001	
M 009 S ☐ U ☐	Reusable utility gloves shall be inspected for defects and decontaminated after every potential exposure to body fluids. Gloves shall be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.		x	392-198 296-62-08001	
M 010 S ☐ U ☐	A policy to assure prompt disinfection of contaminated surfaces and receptacles with a recommended disinfectant shall be in effect.		x	392-198 296-62-08001	
M 011 S ☐ U ☐	Wrestling, weight lifting, and gymnastic equipment shall have an unbroken surface that is easily cleanable. Small tears may be repaired with tape. All tears shall be repaired daily.		x	392-198 296-62-08001	
M 012 S ☐ U ☐	Containers for contaminated sharps shall be closable, puncture resistant, and leak proof on sides and bottom. Containers shall be labeled as a biohazard, easily accessible to users, and maintained upright for use.		x	392-198 296-62-08001	
M 013 S ☐ U ☐	The district shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee.		x	392-198 296-62-08001	

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M. BLOODBORNE PATHOGENS & EXPOSURE CONTROL PLAN

		Required	Recommended	WAC or Other Code Reference	Plans Review
M 014 S ☐ U ☐	Other regulated waste containers shall be closable, able to contain contents, leak proof, labeled as biohazard, closed prior to removal, and disposed of in accordance with regulations.		x	392-198 296-62-08001	
M 015 S ☐ U ☐	Gloves and other appropriate PPE shall be worn when handling contaminated laundry. Contaminated materials shall be bagged/contained at the location where used in leak proof laundry bags or containers and labeled appropriately.		x	392-198 296-62-08001	
M 016 S ☐ U ☐	Contaminated laundry (athletic uniforms and towels) shall be laundered in accordance with WISHA regulations.		x	392-198 296-62-08001	
M 017 S ☐ U ☐	BBP training shall be provided to all potentially exposed employees within six months from the first day of employment and at least annually thereafter. Training shall also be provided when employees change assignments and/or procedures.		x	392-198 296-62-08001	
M 018 S ☐ U ☐	BBP training shall include an explanation of the employer's Exposure Control Plan and shall include an opportunity for interactive questions with a person knowledgeable in the field of bloodborne pathogens.		x	392-198 296-62-08001	
M 019 S ☐ U ☐	BBP training shall include modes of transmission, recognition of tasks and procedures which involve potential exposures, information on HBV vaccinations, details of emergency response for exposure incidents, post-exposure evaluations, and explanations of all signs, labels and/or color coding.		x	392-198 296-62-08001	
M 020 S ☐ U ☐	BBP training records shall include training dates, a summary of training contents, and names and qualifications of all trainers along with the names and job titles of all persons trained. Records shall be maintained for three (3) years from the date of training. All medical and training records shall be available upon request to L & I.		x	393-198 296-62-08001 (8)	
M 021 S ☐ U ☐	Medical records shall be kept for each exposed employee, including name and social security number, and shall include a copy of the employee's Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination.		x	392-198 296-62-08001(8)	
M 022 S ☐ U ☐	The employer shall make available the Hepatitis B vaccine and vaccination series to all employees who have potential occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.		x	392-198 296-62-08001(8)	
M 023 S ☐ U ☐	The school district will require employees who have potential occupational exposure to blood or other potentially infectious materials that may be at risk of acquiring Hepatitis B virus (HBV) infection and have declined to be vaccinated with Hepatitis B vaccine, sign the **"Hepatitis B vaccine declination–Mandatory"**.		x	392-198 296-62-08005	
M 024 S ☐ U ☐	For each employee with occupational exposure, the school district shall develop procedures to ensure confidentiality; and not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as many be required by law.		x	392-198 296-62-08001(8)	

N. PLAYGROUNDS

		Recommended	Required	WAC or Other Code Reference	Plans Review
N 001 S ☐ U ☐	All new playground equipment meets specifications in the most current versions of the U.S. Consumer Product Safety Commission "Handbook for Public Playground Safety" and ASTM F 1487, "Standard Consumer Safety Performance Specifications for Playground Equipment for Public Use."	x		CPSC ASTM	x
N 001a S [n] U [a]	NOTE: While these ASTM standards and CPSC guidelines will not specifically address all older playground equipment (e.g. pre-1981 equipment), the general concepts and guidance is applicable to all playground equipment. http://www.cpsc.gov				
N 002 S ☐ U ☐	New playgrounds are accessible. Schools must meet "Americans With Disabilities Act of 1990" requirements.		x	ADA	x
N 003 S ☐ U ☐	Plans for new playgrounds are reviewed by the school district's local health district.		x	246-366-030(1)	x
N 004 S ☐ U ☐	The school has a written policy/procedure on playground supervision that ensures adequate supervision of the playground whenever it is occupied during the school day. To determine adequate supervision the school conducted an evaluation considering all relevant factors.	x		OSPI and DOH	
N 005 S ☐ U ☐	Playground supervisors are selected, trained and equipped according to written guidelines.	x		OSPI and DOH	
N 006 S ☐ U ☐	There are written plans for, and employees have been trained in, how to handle emergencies on the playground.	x		OSPI and DOH	
N 007 S ☐ U ☐	The school has written playground rules that are taught to students and posted at school, sent to the parents and reviewed periodically.	x		OSPI and DOH	
N 008 S ☐ U ☐	The school/district has written procedures and a process for selecting and placing playground equipment appropriately.	x		OSPI and DOH	
N 009 S ☐ U ☐	All playground equipment has acceptable fall zones and acceptable protective surfacing. (NOTE: "acceptable" according to the most current versions of the CPSC "Handbook for Public Playground Safety." See Sections 4 & 5 and Table 1 for recommended depth of various surfacing materials.) http://www.cpsc.gov	x		CPSC ASTM	x
N 009a S [n] U [a]	NOTE: A "triaxial accelerometer" has been developed to conduct measurements of HIC and G-max. These field tests provide documented test data of surfacing impact conditions at the time of testing. Surface conditions will vary greatly due to temperature and other weather conditions as well as from day to day changes due to local activities.				
N 010 S ☐ U ☐	The school/district has a comprehensive inspection and maintenance program for playgrounds which specifies the frequency of inspection.	x		OSPI and DOH	
N 011 S ☐ U ☐	Periodic maintenance and repair is performed on playground equipment according to the manufacturer's specifications.	x		OSPI and DOH	

N. PLAYGROUNDS

		Required	Recommended	WAC or Other Code Reference	Plans Review
N 012 S ☐ U ☐	Periodic playground inspections are documented. Inspections include identifying hazards specified in the the most current versions of the U.S. Consumer Product Safety Commission "Handbook for Public Playground Safety" and ASTM , "Standard Consumer Safety Performance Specification for Playground Equipment for Public Use."	x		CPSC ASTM F 1487	
N 013 S ☐ U ☐	There is a procedure and process for adequately addressing hazards on the playground.	x		OSPI and DOH	
N 014 S ☐ U ☐	Soccer goals are anchored to prevent tipping as per CPSC guidelines. NOTE: See the U.S. Consumer Product Safety Commission's "Guidelines for Movable Soccer Goal Safety."	x		CPSC	x
N 015 S [n] U [a]	Information on "best practices" of many aspects of school playground safety listed in this section can be found in "School Playground Safety Guidelines" available at: www.esd112.org/insurance_programs/resources.html				
N 016 S [n] U [a]	NOTE: The National Program for Playground Safety provides information for parents, school administrators and other public officials relating to improvement of playground safety at the following website: http://www.uni.edu/playground/				

O. ANIMALS IN SCHOOLS

		Required	Recommended	WAC or Other Code Reference	Plans Review
O 001 S U ☐ ☐	Whenever animals are being brought into a school, or when students are being brought to a place where animals are present, a person designated by the school (e.g. the principal, nurse, risk manager, etc.) shall be notified so that planning and preparation can take place prior to student-animal interaction.	x		OSPI and DOH	
O 001a S U ☐n ☐a	NOTE: Animals in the classroom are a common cause of indoor air quality concerns. If adverse IAQ is a concern, remove all animals from the school until the issue is adequately addressed.				
O 002 S U ☐ ☐	Parents should be notified if any live or dead animal is to be kept in their child's classroom. Children who have allergies or asthma may react unfavorably to exposure. Feces, urine, fur, feathers, preservatives and feed may adversely affect indoor air quality (IAQ) if allowed into a classroom.	x		OSPI and DOH	
O 003 S U ☐ ☐	Keeping and handling of live animals in classrooms shall be in a designated area only. Designated areas shall include impervious cleanable surfaces with spot ventilation directly to the outside of the building.	x		OSPI and DOH	x
O 004 S U ☐ ☐	Cages should be lockable and should be cleaned daily by staff or supervised students.	x		OSPI and DOH	
O 005 S U ☐ ☐	Handling of live animals should only be allowed under adult supervision. Sturdy, bite-resistant gloves are recommended whenever live animals are handled. Where animals are present, it is recommended that a "hand-wash" sign be posted.	x		OSPI and DOH	
O 006 S U ☐ ☐	Hand washing facilities should be provided and readily accessible. Hands should always be washed with soap and warm water after handling animals, cages, bedding, etc.	x		OSPI and DOH	
O 007 S U ☐ ☐	Animals that are kept in the classroom should be fed appropriate food on a regular basis and be provided with fresh water at all times to prevent animal illness, disease, or death.	x		OSPI and DOH	
O 008 S U ☐ ☐	Heat lamps should be secured in such a way as to prevent contact with flammable bedding materials. Electrical connections shall meet the National Electrical Code (NEC). Extension cords are not allowed for permanently installed heat lamps.	x		OSPI and DOH	
O 009 S U ☐ ☐	Only animals, mammals, birds, fish and reptiles bred in captivity should be allowed in schools due to the wide variety of diseases carried by "wild" animals, mammals, fish and reptiles. Animals must have current vaccinations appropriate to the species. Consult the Local Health Agency for vaccination requirements.	x		OSPI and DOH	
O 010 S U ☐ ☐	Fish aquariums should be cleaned regularly. Used water from aquariums should be disposed of in sinks that are not used for food preparation or for obtaining water for human consumption.	x		OSPI and DOH	
O 011 S U ☐ ☐	Schools shall report all notifiable conditions, including animal bites, to the local health jurisdictions.		x	246-101-420	
O 012 S U ☐ ☐	Ensure that all classroom animals are properly cared for on weekends, holidays and breaks. Dead, sick, or diseased animals or filthy (mold, dirt, feces, etc.) cages/aquariums degrade the indoor air quality and are not conducive to a healthy classroom environment.	x		OSPI and DOH	

S=Satisfactory
U=Unsatisfactory

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O. ANIMALS IN SCHOOLS

		Recommended	Required	WAC or Other Code Reference	Plans Review
O 013 S U ☐ ☐	Parrots, love birds, parakeets and other 'hook billed' birds shall be prohibited in public schools as per WAC 246-100-201.		x	246-100-201(f)	
O 014 S U ☐ ☐	There should always be contact between a teacher/coordinator and the operator of a petting zoo or animal exhibit before the visit occurs to ensure safe and healthy conditions for the students. Petting Zoo guidelines can be found at: www.doh.wa.gov/ehp/ts/Zoo/PettingZooHealthGuide.doc	x		OSPI and DOH	
O 014a S U n a	NOTE: Refer to Appendix F for additional recommendations concerning safety and health issues dealing with animals.				
O 015 S U ☐ ☐	Most reptiles (turtles, lizards & snakes) carry salmonella. It is imperative that, whenever any animals (reptiles, fish, birds, etc.) are handled, soap and hot water are immediately available for use by students and staff.	x		OSPI and DOH	
O 016 S U ☐ ☐	Petting zoos, classroom exhibits and other animal contacts both inside and outside of the classroom should include hand washing facilities with soap and running water, restrict consumption of all food and drinks in areas where animals are present and always require adult supervision. (www.doh.wa.gov/ehp/ts/Zoo/PettingZooHealthGuide.doc).	x		OSPI and DOH	

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P. EMERGENCY & DISASTER PREPAREDNESS

		Recommended	Required	WAC or Other Code Reference	Plans Review
P 001 S ☐ U ☐	Schools shall adopt disaster preparedness policies, procedures, and plans consistent with state requirements and the all-hazards model of safe schools planning as reflected in the OSPI comprehensive safe schools planning model. To address safe schools planning see the OSPI Safety Center website at: www.k12.wa.us/safetycenter/		x	SSB 5543 RCW 28A 305 130 296-24-56701(1) 180-41-035	
P 002 S ☐ U ☐	Schools shall conduct emergency evacuation (fire) drills at least monthly during the school year. School administrators should consult with their local fire department and county emergency services coordinator for local requirements. Annual review and update of the evacuation plan is required.		x	180-41-035 UFC 1303.3.3.2 UFC 1303.4.3	
P 003 S ☐ U ☐	Alarms for all emergency exit drills shall be by the appropriate school building administrator or his designee without advance announcement to building occupants. Drills should be executed at irregular times of day or evening so as to eliminate any possible distinction between a drill and an actual emergency situation.		x	180-41-035	
P 003a S ☐ U ☐	NOTE: Attention is directed to the *Guide for Adoption of Uniform School Exit Drill* prepared and published by the State Fire Marshal for the assistance of school administrators.		x	180-41-035	
P 004 S ☐ U ☐	Evacuation routes shall be posted in each occupied room and shall show primary and secondary evacuation routes, assembly areas and locations of the fire extinguishers and fire alarm pull stations. Evacuation assembly areas shall be away from public streets and shall be clear of paths of responding emergency vehicles.		x	180-41-035 296-24-56701(1) UFC 1303.3.1 UFC 1303.4.1	
P 005 S ☐ U ☐	Special provision shall be made for removal of disabled and physically handicapped persons from the building.		x	180-41-035(2)	
P 006 S ☐ U ☐	All occupants of the building--teachers and other school personnel without exception--shall, at the beginning of each school year, be given full and explicit instructions on exit drills in order that they have a clear working knowledge of exit drill directions and rules.		x	180-41-035(3) UFC 1303.5	
P 007 S ☐ U ☐	Instruction and practice in ways to meet such emergencies as blocked exits and blocked stairways during exit drills shall be provided to teachers and pupils.		x	180-41-035(4)	
P 008 S ☐ U ☐	Records of each emergency drill shall be maintained and include the date and time of each drill, the person conducting the drill and other information relative to the drill including the time required to evacuate the building.		x	UFC 1303.6.4	
P 009 S ☐ U ☐	Each school administrator should be familiar with their local County Emergency Plan including the County's planned use of school facilities and resources in the event of an emergency or disaster.	x		OSPI and DOH	
P 010 S ☐ U ☐	School administrators should be prepared if an emergency requires students/staff to stay in the building for a prolonged period of time; e.g., overnight. Disaster officials recommend sufficient supplies for a 72-hour period.	x		OSPI and DOH	
P 011 S ☐ U ☐	School design professionals should employ Crime Prevention Through Environmental Design (CPTED) principles when designing schools. The National Crime Prevention Council provides information at: http://www.ncpc.org/ncpc1.htm	x		OSPI	x

Q. PESTICIDE USE IN SCHOOLS

		Recommended	Required	WAC or Other Code Reference	Plans Review
Q 001 S ☐ U ☐	K-12 public schools and licensed day care centers must provide annual notification of their pest control policies and methods, establish a system to notify parents and guardians and employees of planned pesticide use and post signs where pesticides have been applied.		x	RCW 17.21	
Q 001a S ☐ U ☐	A manual titled "Compliance Guide for the Use of Pesticides at Public Schools (K-12) and Licensed Day Care Centers" is available at Washington State Department of Agriculture's website: www.wa.gov/agr/PestFert/default.htm. The manual provides detailed instructions, diagrams and sample signs and forms for school use.	x		RCW 17.21	
Q 002 S ☐ U ☐	Annually, or upon enrollment, schools must provide a written notification to parents (or guardians) and to school employees. This notification must inform them of the school's pest control policies and methods of application as well as the requirements for posting and pre-notification.		x	RCW 17.21	
Q 003 S ☐ U ☐	A system must be in place that notifies interested parents or guardians and school employees at least 48 hours before a pesticide application. Notification must name the pesticide to be applied, the location, intended date and time of the application, the pest to be controlled and the name and telephone number of a contact person at the school.		x	RCW 17.21	
Q 004 S ☐ U ☐	The law requires posting of all pesticide applications at the time of the application. The poster (sign) must remain is place a minimum of 24 hours. Posting requirements are slightly different for pesticide applications made to school grounds (outdoors) versus applications to school structures (indoors).		x	RCW 17.21	
Q 005 S ☐ U ☐	Signs for outdoor posting must be at least 4 inches by 5 inches in size and must state: THIS LANDSCAPE HAS BEEN RECENTLY SPRAYED OR TREATED WITH PESTICIDES BY YOUR SCHOOL (Actual name of the school or school district should be on the sign.) The sign must also include the name and phone number of who to call for more information.		x	RCW 17.21	
Q 006 S ☐ U ☐	Signs for indoor posting must be at least 8.5 inches by 11 inches in size and must state the name of the pesticide applied, the date, time and location of the application, the pest to be controlled and a contact name and number. Posting must be made in a prominent place in the main office and at the actual application location.		x	RCW 17.21	
Q 007 S ☐ U ☐	Public schools and day care centers must keep an annual summary of all pesticide applications and make that summary readily available to interested persons.		x	RCW 17.21	
Q 008 S ☐ U ☐	Pesticide storage requirements are located in WAC 16-228. state and local fire codes regarding storage requirements may be more restrictive than WSDA requirements specified in WAC 16-228. school administrator must check with their local Fire Department for specific requirements.		x	16-228-1220(6)(7)	x
Q 009 S ☐n U ☐a	NOTE: Free pesticide disposal is available to public schools through the WA Dept. of Agriculture. Phone: (360) 902-2056 or, 1-877-301-4555. Fax (360) 902-2093, Email: wastepesticide@agr.wa.gov Website: www.wa.gov/agr/PestFert/EnvResources/WastePesticide.htm				
Q 010 S ☐n U ☐a	Integrated Pest Management is recommended by EPA and all other agencies as the Best Management Practice for schools to employ when addressing pest concerns. See the website at: http://www.epa.gov/pesticides/food/ipm.htm	x		EPA OSPI and DOH	

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R. VISUAL & PERFORMING ARTS

		Recommended	Required	WAC or Other Code Reference	Plans Review
R 001 S ☐ U ☐	All visual arts classrooms need to be equipped with sinks and bathrooms in close proximity and white boards (not chalk boards).	x		OSPI	x
R 002 S ☐ U ☐	Choir and band, and orchestra rooms require maximum ventilation and outside incoming fresh air.		x	OSPI 51-13-Table 3-4	x
R 003 S ☐ U ☐	Piano and other heavy instruments should be provided with wheels or rollers for safe moving. Students should not be utilized to move heavy objects; e.g., piano, large percussion, string bass and woodwind instruments or choral and band risers and shells.	x		OSPI	
R 004 S ☐ U ☐	Dance Education facilities (where participants "leave the floor" during physical activities) should be provided with resilient flooring. Rails for balance should also be provided in these areas.	x		OSPI	x
R 005 S ☐ U ☐	Whenever glass mirrors are provided in dance instructional areas, the mirrors should be made of safety glass.	x		OSPI	x
R 006 S ☐ U ☐	Microphones ("wireless" preferred) should be provided for instrumental and vocal specialists to provide clear direction to students and to avoid damage to teacher's vocal chords from having to strain their voices to talk over instruments, music and singing.	x		OSPI	x
R 007 S ☐ U ☐	Sound levels in music rooms shall comply with WISHA noise level requirements through the application of acoustical and architectural design. (See Sound Level Section).		x	296-62-090	x
R 008 S ☐ U ☐	When "Black Boxes" are allowed in schools, Fire and Building codes must be complied with especially as relating to minimum exit route lighting, exit signs and required stair, seating, aisles widths and other specifications, etc. for the audience.		x	246-366-120 OSPI UBC UFC	x
R 009 S ☐ U ☐	Costume, wardrobe and band uniforms, etc. require adequate storage to avoid fire and storage hazards as well as proper maintenance and care of uniforms.	x		OSPI	x
R 010 S ☐ U ☐	Set design and construction require a safe working area, OSHA -approved power tools and compliance with all WISHA construction regulations. All students using portable hand tools and powered equipment must be trained in safe operation procedures and supervised by a certified CTE (vocational education) teacher.		x	296-24-655 OSPI	x
R 011 S ☐ U ☐	Adequate ventilation must be provided whenever kilns, paints, glues and other vaporous materials are used. See Section L and the new CTE Safety Manual at: http://www.k12.wa.us/CareerTechEd/techprep/default.asp		x	296-24-370 OSPI	x
R 012 S ☐ U ☐	Eye, ear, hand, foot and body protection are required with certain chemicals and projects. (Refer to WISHA Personal Protective Equipment (PPE) requirements.)		x	296-800-160 OSPI	
R 013 S ☐ U ☐	In visual arts class areas, the use of premixed pottery clay is recommended rather than using a pug-mill. Only non-toxic art supplies should be used.	x		OSPI and DOH	

R. VISUAL & PERFORMING ARTS

		Required	Recommended	WAC or Other Code Reference	Plans Review
R 014 S ☐ U ☐	Personal protective equipment and safety training for students in visual arts class areas should be provided.		x	OSPI and DOH	
R 015 S [n] U [a]	Additional information regarding the Visual and Performing Arts can be found on the following website: http://www.k12.wa.us/curriculumInstruct/arts/default.asp			OSPI	

S. ATHLETICS

		Recommended	Required	WAC or Other Code Reference	Plans Review
S 001 S U n a	NOTE: The Washington Interscholastic Association maintains an extensive website relating to all aspects of High School activities at: http://www.wiaa.com/			WIAA	
S 002 S U n a	NOTE: WIAA recommends the "Sports Medicine Handbook" available from National Federation of High Schools. Cost is $14.95 plus shipping. Order from 1-800-776-3462.			WIAA	
S 003 S U n a	NOTE: WIAA recommends the latest version of the "Sports Rulebook" series available from WIAA. Cost is $6.50 each booklet. Order from (425) 687-8585.			WIAA	
S 004 S U n a	NOTE: WIAA recently issued "Rule 23." This rule sets the requirements that all coaches must meet when working at WIAA sanctioned schools. Rule 23 can be downloaded at: http://www.wiaa.com/pub/handbook/HTML/23.0.0.htm		x	WIAA Rule 23	
S 005 S U ☐ ☐	Many ECP and BBP provisions also apply to all students. WIAA has adopted rules for interscholastic activities based on the BBP standard. This applies school-wide with particular emphasis in the athletic department. (See Section M, Bloodborne Pathogens and Exposure Control Plans.)		x	OSPI and DOH	
S 006 S U ☐ ☐	All athletic facilities, equipment, apparatus and fixtures should comply with manufacturer's instructions and with the rules and recommendations of the WIAA and the school district's insurance carrier.	x		OSPI and DOH	x
S 007 S U ☐ ☐	Student-athletes should have proper instruction and documented safety training prior to participating in any new activity.	x		OSPI and DOH	
S 008 S U ☐ ☐	Student-athletes should have proper physical conditioning prior to participation in athletic activities.	x		OSPI and DOH	
S 009 S U ☐ ☐	Student-athletes should have supervision during all athletic activities.	x		OSPI and DOH	
S 010 S U ☐ ☐	First aid, by a first-aid trained person with immediate access to first aid supplies, must be readily accessible to injured participants at all physical education classes and all athletic practices and events. A means to summon additional medical care and transport for injured persons must be available.		x	WIAA OSPI and DOH WISHA	

Part III

Appendix A
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Appendix B
Department of Health's School Inspection/Assessment Protocols

School and DOH officials have agreed that there is a need for standardization in the way that schools are approached and inspected by health agencies. The following inspection protocol was drafted by the School Facilities Health and Safety Advisory Committee as an attempt to resolve the issues of: 1) being inspected by health departments without established protocols; 2) lack of cooperation between schools and health agencies; and 3) improving the communication of inspection findings.

Recommended Inspection/Assessment Procedure

1. **First meeting with school district.**

   At the direction of the school superintendent, it is essential to communicate with, or meet with, the school district designee(s) and establish an initial point of contact (person) for future meetings, communications and correspondence. At this meeting the health agency representative should share the forms, rules and guidelines as well as any administrative procedures that will impact the schools. Sample letters and reports may be shared to let the schools know what to expect. Schools may share facilities plans, current and long-range plans, budget constraints, local priorities, and examples of inspection reports performed by other agencies/entities, including self-inspection reports.

2. **Schedule inspections**.

   In order to accommodate the various needs and situations that exist in different school districts, it is important that health agencies work cooperatively through the school district contact person to establish an appropriate inspection schedule. The schedule should establish dates, times and approximate duration that may be needed for each visit. It is important that this be done for several reasons including; developing trust, increasing the level of communication between health agency and school district personnel, sharing technical expertise, and appropriate interaction when dealing with issues that arise.

3. **Establish site contacts**.

   Once contact with the school district is established, it is important to similarly establish contacts at each school facility. Each school will have different circumstances that will govern access to various areas of the buildings at different times of the day. In addition, having a school site person along during the site visit may not be convenient on a given day, due to schedule conflicts, illnesses or other circumstances. The school contact may be a principal, safety representative, custodian or other staff representative as directed by the school administrator.

4. **Perform the inspection**.

Using a form and supporting documentation agreed to in advance, the health agency representative should perform a routine, comprehensive, targeted, or follow-up inspection or assessment as needed. The school district and school contacts should be informed in advance as to which type of inspection they are receiving in order to know what to expect in the report.

5. **Have a closing conference**.

The closing conference allows the health official and school representative to review the results of the visit together and agree upon what actions might be necessary. The health official may also be able to assist the school district with resolving issues, providing resources and prioritization of health and safety items.

Reports should distinguish between non-compliance with existing regulations, such as WAC 246-366 as opposed to recommendations, such as those of the Consumer Product Safety Commission. Items that do not conform to recommendations should not be listed as "violations" or "citations." Reports should identify the item in question and that it does not ,conform to the recommendation. For WAC or RCW violations, cite to the code section.

6. **Draft report**.

Once the school facility has been surveyed, a report labeled "DRAFT" should be written. This will identify it as being different from the subsequent "FINAL" report. In accordance with the procedure that has been agreed upon in advance with the school district, transmit a copy of draft report to the school district contact person(s). The school district will prepare responses to each of the items that have been noted. Be aware that schools are sensitive to terminology, and that the word "violation" is sometimes misused to apply to non-conformance with a "recommendation" which may not be expressly incorporated into the board of health rules. It is important to distinguish "violations" from other items, which may only be discrepancies, or not in conformance with various recommendations. Draft copies of reports should only be sent to the school districts and must not be forwarded to others.

7. **Review the school district's comments**.

The health official and the school district will have already agreed to a time frame for review of the draft reports. Some districts will want the report for each school submitted together while others may prefer to have the reports submitted as they are completed. In either case, working with the school district is critical so that communication is maintained in a positive and open fashion.

The health official and the school district may wish to meet in person or by telephone to review the draft reports and discuss areas of agreement as well as disagreement or

misunderstanding. This meeting should also allow both parties to explain their intentions and priorities. It is of considerable value to the health official to allow the school district to propose reasonable timelines to correct problems that are found during the inspection. This allows schools to work within the available public funding budgets at their disposal and identify any budget line items that may be required in the future.

8. Issue the final report.

The final report should be addressed to the school district board of directors and district superintendent in accordance with the board of health rules {WAC 246-366-040(2)(b)}. In addition, it is highly recommended that the report be copied to the school district contact person, since this will be the person who will be responsible for working with the health official and addressing the items noted in the report. These details should be worked out at the first meeting between the school district and the health official so there are no "surprises" to the school district.

9. Follow-up reports.

At such time as the school administrator and the health official agree, a follow-up visit should be done to identify which items have been corrected and which have not. A follow-up report should recognize the school district's progress on each issue they have corrected or addressed as well as noting areas, which still do not conform to established regulations or recommendations. Timelines may need to be revised by the school district, with input from the health agency on priority items, for matters that have not been corrected. In this way, the health official's reports may be of assistance to school district staff in presenting funding needs to school district decision-makers and others.

Recommended Report Format

1. **General Introduction**. Should describe the focus (general or targeted areas) and purpose of the inspection and cite the authority under which the inspection is being conducted.

2. **Report findings**. Describe the problem found by item number, where it is located on the premises, and reference the problem to a regulation or recommendation that pertains to it. The findings may be discussed in narrative fashion if desired.

3. **Make recommendations**. Recommendations may be centered around facilities repairs and improvements or focus on process and operational suggestions.

4. **Prioritize issues**. Some items identified during the inspection may have been corrected by the time the report is issued while other items may be expensive and require long-range planning and funding efforts to resolve. Other items may pose serious risks for accidents or health problems. Some items pose a lower risk of health and safety problems than others but are still important to the health official for prioritizing.

5. **Identify any follow-up inspection date**. Dates for any follow-up inspection(s) should be set for documenting progress on the items identified on the inspection report.

Frequency of Inspections

In the original regulation, the State Board of Health required "annual inspections" for school buildings. Currently, SBOH the regulation states "periodic" inspections. Since schools are not subject to fines, closure or other sanctions associated with inspections, the word "assessment" is often substituted for the word "inspection" when health officials are working with school districts.

Several health agencies have agreed to inspect school facilities every two or three years provided there are site-based safety committee inspections, follow-up inspections by the health official in the alternate years, and coordination, report-sharing, and cross-training between health agency and the school districts.

The School Facilities Health and Safety Advisory Committee supported either an annual inspection or a two to three year frequency with some additional coordination in alternate years. There was also discussion about performing inspections to investigate complaints or respond to school requests. The committee agreed that it was appropriate for health officials to inspect schools under these circumstances.

Appendix C
School Inspection Roles and Responsibilities

Area	Agency	New Construction/ Remodel	Routine Inspection	Complaints/ Emergency Response	Statute(s) Citations(s)	Regulation(s) or other Citation(s)
Plan Review and Construction	SD	Develops proposal, site safety, noise, building materials, lighting ventilation, surfaces, environmental hazards	SD—any modifications or changes	SD respond Depends on what is needed		WAC 246-366-040
	SBOH	Rules for K–12 schools			RCW 43.20	WAC 246-366
	LHD	Site safety, noise, building materials, lighting ventilation, surfaces, environmental hazards, plans review, water adequacy, onsite sewage	Post-construction pre-occupancy	LHD - child safety and IAQ problems	RCW 70.05 RCW 19.27.097	WAC 246-366 & Growth Mgmt
	LBO	Structural plans, plans review/permits	During construction	Risk Mgr—loss control		(UBC, UMC, UPC, NEC, ASHRAE, local)
	PUD	Sewer/water hook-up, water, sewer, storm water run-off	During construction	L&I—worker safety and IA		
	SPI	Value eng.	N/A			
	AQA	Dust/asbestos removal Owner's project manager, dust	As needed Daily to weekly			
	L&I	Electrical plan reviews Electrical installations Boilers Modular offices and classrooms Elevators and lifts Asbestos removal			RCW 19.28 RCW 19.28 RCW 70.79 RCW 43.22 RCW 70.87	WAC 296-46-140 WAC 296-46 WAC 296-104 WAC 296-150 WAC 296-81, -82, -84, -85, -87, -93 WAC 296-65
	WSP (State Fire Marshal)	Plan review for all E-1 occupancies	Construction inspections (May delegate construction inspection to local jurisdictions.)		RCW 19.27	
	Fire	Plans review/permits (UFC-Auto Spk Sys, Alarm Sys, Range Hood Ext. Sys, Fire Ext)				
	EPA					AHERA
	DOE	Waste disposal, hazardous materials				
Land Use	Planning	SEPA/zoning				
	DOE	Hazardous materials		SD—respond		
	SD	Develops proposal	SD—changes in facility programs	INS—claims		
	Lenders	Environmental clearance				
	LHD	Site approval		Noise		
Water Supply	LHD LHD	Small system approval Well drilling start notice (some areas) Well site approval	LHD—routine samples Sanitary Survey	LHD—correction notices Bacteria testing First response	RCW 70.05 RCW 19.27	WAC 246-291 WAC 246-366-060 Local rules WAC 246-290
	DOH	Larger system approval	Annual Operating Permit	DOH—correction notices		Lead Contamination Control Act WAC 246-294 WAC 246-290

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Appendix C
School Inspection Roles and Responsibilities (continued)

Area	Agency	New Construction/ Remodel	Routine Inspection	Complaints/ Emergency Response	Statute(s) Citations(s)	Regulation(s) or other Citation(s)
Water Supply (continued)	PUD	Existing water supply	Fire sprinkler hydrant inspection			
	DOE	Water rights			RCW 90.44	WAC 178-160
	DOE	Well drilling start notice	PUD—samples LHD—Construction Inspection (some areas)	PUD—responds, tests	RCW 18.104	WAC 178-160
	SD	Develops proposal	Facilities staff	SD—responds, tests		
	Fire	Volume requirements,				UFC
	Water District/ DOH	Potable water, supply and delivery				WAC 246-290
	EPA					Safe Water Drinking Act
	SPI					Lead in School Drinking Water
Waste Management	LHD	Smaller on-site Larger onsite by agreement with DOH Initial site evaluation Final construction	LHD—O&M permits	LHD—repair permits Complaint response	RCW 70.05	WAC 246-272 WAC 246-366-070 Local health rules
	DOH	Larger on-site	DOH—O&M permits	DOH—repair permits		
	DOE	NPDES permits	DOE—periodic renewals	DOE - violations		
	PUD	Existing system		SD—corrects problems		
	SD	Develops proposal	SD and Insurance - Loss Control	Complaints, emergency response, claims SD and Insurance - Claims		
Food Service	LHD	Plan review	LHD—routine inspection	LHD—illness investigation	RCW 70.05	WAC 246-215 WAC 246-366-130 Local rules
	SD	Develops proposal	SD—routine inspection	SD—claims		
			INS—routine inspection (Loss control)	INS—claims		
Playground	LHD	Plan review	LHD—routine inspection	LHD	RCW 70.05	WAC 246-366-140
	SD/PTA	Varies Insurance—Loss Control, Facilities review, develops proposal	SD and Insurance—Loss Schools—self inspect	Maintenance and safety SD and Insurance - Claims		
	Parents	Advocate for children	Parents inspect	Initiate if knowledgeable	Parental duty	
	CPSC					Guidelines
	DOH	Train LHDs	Train LHDs			
Shop Safety	LHD	See plan review	LHD routine inspection	LHD - children's safety Students	RCW 70.05	WAC 246-366-140
	L&I	N/A	L&I—N/A	L&I—adult safety Employees (teachers)		
	SD	Develops proposal	SD & INS—Loss Control	SD & INS - claims		
Chemicals	LHD	See plan review	LHD—routine inspection –children	LHD—spill response Storage	RCW 70.05	WAC 246-366-140 WISHA standard, BMP-IAQ manual, Poisonous plant guide
	DOE		L&I—inspection—teacher safety	DOE—spill response Waste disposal		
	L&I		Inspects and consults for workers	Investigates before/ after injuries		WISHA Std
	SD	Develops proposal	SD and INS—Loss Control	Fire—spill response SD and INS—claims		

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Appendix C
School Inspection Roles and Responsibilities (continued)

Area	Agency	New Construction/ Remodel	Routine Inspection	Complaints/ Emergency Response	Statute(s) Citations(s)	Regulation(s) or other Citation(s)
Chemicals (cont.)	OSPI					Science Teachers Guide, 1984
Fire Safety	LBO	Fire protection plan	LBO—routine inspection sprinklers/extinguishers/ exits		RCW 28A.305.130	
	SD	Develops proposal	SD and INS—Loss Control	SD and INS—claims Emergency response		
	Fire	Fire protection plan (see LBO)	See LBO	Investigates		UFC
	L&I		Inspects	Responds to complaints		WISHA
Ventilation	LHD	Plan review	Inspects	Responds to complaints	RCW 70.05	WAC 246-366-080
	L&I		Inspects	Responds to complaints		WISHA
	LBO					Mechanical code UMC, ASHRAE Std
	SD	Develops proposal	SD—maintenance and repairs	SD and INS—claims		
Air Quality	AQA	Permits	SD—routine monitoring	AQA—emissions		
	SD	Develops proposal	SD—maintenance and repairs	IAQ complaints Insurance—Loss Control review		
	L&I		Inspects	Responds to complaints—workers		WISHA
	DOH			Assist LHDs and SDs	RCW 43.20	WAC 246-366-080
	LHD	Plan review		IAQ complaints—children	RCW 70.05	WAC 246-366-080
				SD and INS—claims		
Lighting	SD	Develops proposal	SD—general maintenance and repairs	SD and INS—claims Insurance—Loss Control		WAC 246-366-120
	LHD	Plan review	LHD—routine inspections—children	Complaint response—students	RCW 70.05	WAC 246-366
	L&I	Electrical permits	Inspections—workers	Complaint response—children		Workplace standards
	LBO	Plan review				UBC Standards
Transportation	SD	Develops proposal	SD and INS—review program and inspect	SD and INS—claims and complaints		
	WSP		WSP safety			
Other	SD		Regular survey	INS—claims		
	L&I -		Boiler inspections			
	INS		State required inspections			
Premises	LHD	Site review, plan review and pre-occupancy inspection	Periodic inspection	Respond to complaints	RCW 70.05	WAC 246-366
	SD	Develops proposal	SD and INS—review program and inspect	SD and IINS—claims and complaints		
Indoor Air (See air quality and ventilation)	AQA			Local air pollution authority		
	LBO					UMC, ASHRAE
	Fire			Smoke control		
	LHD			LH—complaints	RCW 70.05	
	LHD/DOH	Review plans	LHD routine inspection	LHD complaints	RCW 70.05	WAC 246-260

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Appendix C
School Inspection Roles and Responsibilities (continued)

Area	Agency	New Construction/ Remodel	Routine Inspection	Complaints/ Emergency Response	Statute(s) Citations(s)	Regulation(s) or other Citation(s)
Swimming Pools (cont.)	SD		SD—regular survey	SD—claims and complaints		
Portables	L&I	Modular offices and classrooms Permits/approval LHD plan/site approval	LHD routine inspection		RCW 43.22 RCW 70.05	WAC 296-150B WAC 246-366
Workplace Safety and Health	L&I		ALL workers Employees under age 18 (excluding agricultural child labor)	L&I investigation	RCW 49.12, 49.46, and 49.52.060	WAC 296-24, -27, -36, -44, -62, -63, -155, -303, WAC 296-126
	SD	Develops plans	Risk Management/INS inspection	SD accident investigation		
Radon (E and SW WA)	EPA		Education materials			
	LHD	Some EW counties advise		Complaints		
	SD		Testing for levels	Complaints		
	L&I					
Lead	DOH/LHD		Childhood lead screening			
	SD					
	EPA		Environmental lead			
	WISHA		Occupational exposures			

Index:

LHD - Local health jurisdiction
LBO - Local building official/fire marshal
L&I - State Department of Labor and Industries
DOH - State Department of Health
DOE - State Department of Ecology
PUD - Any local utility district/municipal utility
AQA - Air quality agency (regional or local)
OSPI - Office of Superintendent of Public Instruction
Planning - Local city/county planning agency
Fire - Local fire department
DOT - State Department of Transportation
SD - School or ESD risk manager or business manager or facilities manager
INS - Private insurance carrier's loss control/claims
WSP - Washington State Patrol

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Appendix D
Science Laboratory Chemicals

Table 1

DOH–OSPI list of chemicals deemed unsuitable for use in K–12 schools due to excessive risk that exceeds educational utility

Chemical Name	Hazards
Acetic Anhydride	Explosive potential, corrosive
Acetyl Chloride	Corrosive, dangerous fire risk, reacts violently w/ water and alcohol
Acrylamide	Toxic by absorption, suspected carcinogen
Acrylonitrile	Flammable, poison
Adipoyl Chloride	Corrosive; absorbs through skin, lachrymator (causes tears)
Ammonia, gas	Corrosive lachrymator
Ammonium Bifluoride	Reacts with water, forms hydrofluoric acid
Ammonium Bichromate	May explode on contact with organics, suspected carcinogen
Ammonium Chromate	Oxidizer, poison; may explode when heated
Ammonium Dichromate	Reactive, may cause fire and explosion
Aniline	Carcinogen, toxic, absorbs through skin
Aniline Hydrochloride	Poison
Antimony Oxide	Health and contact hazard
Antimony Powder	Flammable as dust, health hazard
Antimony Trichloride	Corrosive, emits hydrogen chloride gas if moistened
Arsenic compounds	Poison, carcinogen
Asbestos, Friable	Inhalation health hazard, carcinogen
Azide Compounds	Explosive in contact with metals, extremely reactive, highly toxic
Barium Chromate	Poison, carcinogen
Benzene	Flammable, carcinogen
Benzoyl Peroxide	Organic peroxide, flammable, explosive oxidizer
Beryllium and its compounds	Poison, dust is P-listed & highly toxic, carcinogen
Cadmium compounds	Toxic heavy metal, carcinogen
Calcium Fluoride (Fluorspar)	Teratogen, emits toxic fumes when heated
Carbon Disulfide	Flammable, toxic, P-listed
Carbon Tetrachloride	Toxic, carcinogen
Chloral Hydrate	Hypnotic drug, controlled substance
Chlorine	Poison gas, corrosive
Chlorobenzene	Explosive limits 1.8% to 9.6%, toxic inhalation and contact hazard
Chloroform	Carcinogen, if old forms deadly Phosgene gas

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Appendix D
Science Laboratory Chemicals (continued)

Table 1 (continued)
DOH–OSPI list of chemicals deemed unsuitable for use in K–12 schools due to excessive risk that exceeds educational utility

Chemical Name	Hazards
Chlorosulfonic Acid	Toxic also known as sulfuric chlorohydrin
Chromic Acid	Strong oxidizer, poison
Collodion	Flammable, explosive when dry, nitrocellulose compound
Cuprous Cyanide	Toxic
Cyanogen Bromide	Poison, strong irritant to skin and eyes
Cyclohexene	Flammable, peroxide former
Dichloroethane	Flammable, toxic
Dinitro Phenol	Explosive
Dinitrophenyl Hydrazine	Severe explosion and fire risk
Dioxane	Flammable, peroxide former
Ether, Anhydrous	Flammable, peroxide former
Ether, Isopropyl	Flammable, peroxide former
Ethylene Dichloride	Toxic, contact hazard, dangerous fire risk, explosive in air 6-16%
Ethyl Nitrate	Explosive
Ethyleneimine	Flammable, toxic, P-listed
Ferrous Sulfide	Spontaneously ignites with air if wet
Formaldehyde (Formalin)	Toxic, carcinogen, sensitizer
Gunpowder	Explosive
Hydrazine	Flammable, absorbed through skin, carcinogen, corrosive
Hydriodic Acid	Corrosive, toxic
Hydrogen Sulfide, gas	Poison, stench, very toxic
Isopropyl Ether	Flammable, highest-risk peroxide former
Lithium Aluminum Hydride	Flammable, reacts with air, water, and organics
Lithium Metal	Reacts with water and nitrogen in air
Mercaptoethanol	Flammable, corrosive, intense stench
Mercury compounds	Poisonous heavy metal
Methylene Chloride	Toxic, carcinogen, narcotic
Methyl Ethyl Ketone	Flammable, dangerous fire risk, toxic
Methyl Iodide (Iodomethane)	May be a narcotic, carcinogen, lachrymator
Methyl Isocyanate	Flammable, dangerous fire risk, toxic
Methyl Isopropyl Ketone	Toxic
Methyl Methacrylate	Flammable, vapor causes explosive mix with air

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Appendix D
Science Laboratory Chemicals (continued)

Table 1 (continued)
DOH–OSPI list of chemicals deemed unsuitable for use in K–12 schools due to excessive risk that exceeds educational utility

Chemical Name	Hazards
Naphthylamine, a-	Combustible, toxic, carcinogen
Nickel Oxide	Flammable as dust, toxic, carcinogen
Nicotine	Poison, P-listed
Nitrilotriacetic Acid	Corrosive
Nitrobenzene	Highly toxic
Nitrocellulose	Flammable, explosive
Nitrogen Triiodide	Explosive
Nitroglycerin	Explosive
Osmium Tetraoxide (Osmic Acid)	Highly toxic, P-listed
Pentachlorophenol	Extremely toxic
Perchloric Acid	Powerful oxidizer, reactive
Phosphorus Pentasulfide	Water reactive, toxic, incompatible with air and moisture
Phosphorus Pentoxide	Oxidizer, toxic
Phosphorus, Yellow or White	Air reactive, poison
Picric Acid, Trinitrophenol	Explosive when dry
Potassium Chromate	Oxidizer, toxic
Potassium Dichromate	Powerful oxidizer, carcinogen
Potassium Cyanide	Poison, P-Listed
Potassium Sulfide	Flammable, may ignite spontaneously
Potassium, metal	Water reactive, peroxide former (orange fog/crystals)
Pyridine	Flammable, toxic, vapor forms explosive mixture with air
Selenium	Toxic
Silver Cyanide	Extremely toxic
Sodium Arsenate	Toxic
Sodium Arsenite	Toxic
Sodium Azide	Poison, explosive reaction with metals, P-listed
Sodium Borohydride	Flammable solid, water reactive
Sodium Chromate	Oxidizer, carcinogen
Sodium Cyanide	Poison, P-Listed
Sodium Fluoride (Bifluoride)	Highly toxic by ingestion or inhalation, strong skin irritation

Table 1 (continued)
DOH–OSPI list of chemicals deemed unsuitable for use in K–12 schools due to excessive risk that exceeds educational utility

Chemical Name	Hazards
Sodium Fluoroacetate	Toxic, deadly poison
Strontium	Flammable, store under naptha, reacts with water
Testosterone HCl	Controlled substance
Tetrahydrofuran	Flammable, peroxide former
Thioacetamide	Toxic, carcinogen, combustible
Thionyl Chloride	Corrosive
Thiourea	Carcinogen
Titanium Trichloride	Flammable, fire risk
Triethylamine	Flammable, toxic, irritant
Trinitrobenzene	Explosive
Trinitrotoluene	Explosive

Appendix D
Science Laboratory Chemicals (continued)

Table 2

DOH–OSPI list of chemicals appropriate only for advanced level high school science classes due to high risk and limited to small or micro scale quantities

Chemical Name	Hazards
Acetamide	Carcinogen, P-Listed
Aluminum Chloride, anhydrous	Water reactive, corrosive
Ammonium Nitrate	Powerful oxidizer, reactive
Ammonium Perchlorate	Explosive; highly reactive
Ammonium Sulfide	Poison, corrosive, reacts with water and acids
Barium Peroxide	Fire and explosion risk with organic materials, oxidizer, toxic
Bromine	Corrosive, oxidizer, volatile liquid
Butyric Acid	Corrosive, intense stench
Cadmium sulfide	Highly toxic, carcinogen
Calcium Carbide	Flammable, reacts with water
Chromium Trioxide	Oxidizer, poison
Dichlorobenzene	Toxic, also known as "Moth Balls"
Ethidium Bromide	Potent mutagen
Ether, Ethyl	Flammable, peroxide former, 6-month shelf-life max
Hexamethylenediamine	Corrosive, absorbs through skin, lachrymator
Hexanediamine, 1-6	Corrosive, absorbs through skin, lachrymator
Hydrobromic Acid	Corrosive, poison
Hydrofluoric Acid	Corrosive, poison
Hydrogen Peroxide, greater than 29%	Powerful oxidizer, corrosive to skin
Lead compounds	Highly toxic
Lead Nitrate	Toxic heavy metal, oxidizer
Magnesium, powder	Flammable
Mercury, liquid	Toxic heavy metal, carcinogen – not a reagent
Mercury Thermometers	Toxic heavy metal, carcinogen – not a reagent
Phenol	Poison
Phosphorus, Red	Flammable solid, very small quantities only
Potassium Chlorate	Powerful oxidizer, reactive
Potassium Perchlorate	Powerful oxidizer, reactivity hazard
Radioactive Materials	Radioactive
Sebacoyl Chloride	Corrosive fumes, lachrymator
Silver compounds	Toxic
Silver Oxide	Poison
Sodium Chlorate	Powerful oxidizer
Sodium Dichromate	Reactive, may cause fire and explosion
Sodium metal lump	Water reactive, ignites spontaneously in dry hot air

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Appendix D
Science Laboratory Chemicals (continued)

Table 2 (continued)

DOH–OSPI list of chemicals appropriate only for advanced level high school science classes due to high risk and limited to small or micro scale quantities

Chemical Name	Hazards
Sodium, metal, small chips	Water reactive, corrosive
Sodium Peroxide	Water reactive; may cause fire & explosion
Sodium Sulfide	Fire and explosion risk
Strontium Nitrate	Oxidizer, may explode when heated or shocked
Thermite	Flammable solid, small quantities
Toluene	Flammable, dangerous fire risk, toxic
Uranium/Uranyl Compounds	Radioactive
Wood's Metal	Poison
Xylene	Flammable, toxic

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Appendix E
Visual and Performing Arts

PAINTING

Making Paints	Dusts with heavy and radioactive metals. Solvents especially Toluene. Driers, preservatives, and binders, possibly including Pb, Mn, and Co. **Should not be done in schools.**
Oil, Acrylic, and Epoxy Painting	Toxic pigments, especially lead, arsenic, chromate, and cadmium. Solvent exposure, especially Toluene. With epoxy resins, hypersensitivity reactions are a danger. (Note: old pastels may contain asbestos-laden French Talc.)
Spray Painting	Inhalation of solvents and toxic pigments.
Clean-up	Solvent exposures.

PRINT MAKING

Silk-screening with Oil-Based Inks	Exposure to solvents especially in the printing and drying process. Toxic solvents (lacquer solvents and toluene) and isophorone are particular hazards. It is safer to use water-based inks.
Clean-up of Silk Screening Process	Exposure to solvents. Safer to use disposable stencils and other materials.
Lithography	Possible exposure to Lampblack, a carcinogen. Solvent exposure. Metal fumes and gasses from photolithography.
Intaglio	Risk of injury from sharp tools. Solvent exposure, possible methyl chloroform.
Acid Etching (Nitric or Hydrochloric Acid)	Exposure to asphaltum (carcinogenic). K Chlorate (explosive) and C1 gas from Dutch mordant. H_2 gas and NO_x gasses releases in acid etching.
Relief Printing	Risk of injury from sharp tools. Skin irritants from exotic woods. Glue solvents, dusts, and fixatives in collograph making.

CERAMICS, JEWELRY, AND ENAMELING

Clays and Talcs	Silica and asbestos (especially Tremolite) in dried clay residues, allergenic molds in old moist clay.

Kick Wheels	Injury risk.
Glaze Preparation	Exposure to powders of highly toxic heavy metals. **Inappropriate in schools.**
	Exposure to heavy metal pigments especially lead, cadmium, chrome, antimony, vanadium, nickel, and possibly uranium oxide in old compounds. Frittered leads are still hazardous to use in the glazing and firing processes.
Kiln Firing	Exposure to heavy metal fumes (especially Pb as it vaporizes at low temperature) and poisonous gases (e.g. Cl, Fl, SO_2, NO_x, O_3) from unventilated processes. Accumulation of heavy metal fume residue from over-night or weekend firing. Burns, heat exposure, and infrared radiation hazards.
Use of Pottery as Food Service Utensils	The safety of final products using frittered lead glazes depends on the quality control in the firing process and on the type of kiln used. In small electric kilns often used by schools, frittered leads should be expected to vaporize and re-precipitate on pottery in a dangerous, soluble form.

SCULPTURE

Plastics	Formaldehyde, phenol, carbon monoxide, and hydrogen cyanide exposure from work with amino and phenolic resins. Skin and respiratory irritants and allergens with epoxy resins. Methyl methacrylate monomer (irritant and narcotic), benzoyl peroxide (flammable and explosive), acrylic polymer dust (sensitizer) are hazards with acrylic resins. Styrene (highly toxic narcotic, neurotoxin, and internal organ risk), cobalt naphthalenic, dimethylanilane (causes methemoglobinemia), fiberglass, and solvents are potential hazards in work with polyester resins. Work with polyurethane resins may cause exposure to diisocyanates (TDI, MDI), toxic amines, organotin compounds and fluorocarbon blowing agents (cardiotoxic). Heating polyurethane may produce carbon monoxide, nitrogen oxides, acrolein, and hydrogen cyanide. Work with silicones and natural rubbers may cause exposure to acetic acid, methanol, methylene chloride, and flammable and explosive peroxides and hexane. Work with finished plastics may cause exposure to plastic dusts, some of which are irritants or allergens. Heat decomposition of molding pellets and other plastics may produce carbon monoxide, nitrogen oxides, hydrogen cyanide, plastic monomers, monomer methyl methacrylate, hydrogen chloride gas, and toxic polyfluorocarbon decomposition products. Toxic solvents including methylene chloride may be encountered in many processes.

Plaster	Plaster dust and additives (Potassium sulfate, potassium alum, borax, acetic acid, burnt lime). Physical hazards in modeling or carving. Powdered pigments, acrylics, and lacquer solvents in finishing processes.
Wax	Flammable wax vapors, acrolein fumes, decomposition products from heating wax. Solvent exposures (including CCl_4 in some applications). Chlorinated synthetic waxes (with PCB's) may be found in old materials.
Stone	Physical hazards, silica, and asbestos in some applications.
Wood	Allergenic and irritating saps and wood dusts. Carcinogenic wood dust exposure (requires chronic exposures). Highly toxic wood dusts (e.g. giant sequoia, cork oak, some maple woods, and redwood). Glues and solvents.

PHOTOLABS

Black and White	Inhalation of chemical fumes and contact with eyes or skin are primary hazards. Exposures to mono-methyl-p-aminopheno sulfate, paraphenylene diamine, hydroquinone, sodium hydroxide, sodium carbonate, potassium bromide, sodium sulfite are possible in developers. Acetic acid, especially prior to dilution is the primary hazard with stop baths. Potassium chrome alum is another possible exposure. Mixing the sodium sulfite in the fixing bath with the acetic acid in the stop bath can produce sulfur dioxide gas. Other mixture hazards exist with intensifying and reducing compounds. Intensifiers, reducers, and toners can be HIGHLY toxic and include cyanide compounds, chromates, and toxic metals among other chemicals.
Color	In addition to chemicals used in Black and White photography, color photography involves the use of other hazardous chemicals (e.g. the cellusolves, ethylene glycol, and tertiary-butylamine borane).

MISCELLANEOUS VISUAL ARTS

Fiber Arts—Vegetable Fibers (e.g., jute, sisal, cotton)	Fiber dusts and molds may cause acute or chronic pulmonary illnesses.
Fiber Arts-Animal Fibers (e.g., wool)	Anthrax from imported wool or hair.

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Appendix E
Visual and Performing Arts (continued)

Dyeing Fabrics	Skin contact and inhalation of dyes which are allergenic, irritating, or otherwise toxic is the primary hazard.
Leather Craft	Physical hazards, leather dusts (a possible carcinogen with chronic exposure) and solvents from leather cementing are the primary hazards.
Bone and Shell Materials	Physical hazards. Irritants, allergens, and pathogens from bone and shell dusts.
Stained Glass	Physical hazards. Possible exposures during glass decoration: metallic oxides, enamels, silver nitrate, hydrofluoric acid, and wax vapors. Glazing hazards: Pb dust and fumes, Zn chloride. Antiquing hazards: antimony sulfide, copper sulfate, and selenium dioxide.

METALWORK

Welding	Fire/explosion hazards, hot metal and sparks, ultraviolet light, infrared radiation, poisonous gases (CO, NO_x, O_3), toxic fumes (F, Cu, Zn, Fe, Ni, Mg, Mn, Pb, Cd, Cr, Ni, Be).
Brazing	Fire/explosion hazards, hot metal, flame, infrared radiation, fluoride flux fumes, and metal fumes (Cd, Pb, and Zn).
Metal Casting	Molding hazards; formaldehyde, silica, asbestos, bone dusts, sodium silicate, and ethyl silicate and wax fumes (in lost wax process). Pouring hazards: CO, metal oxides (Pb, Ni, Zn), hydrogen cyanide (in lost Styrofoam process), molten metal, heat, and infrared radiation.
Forging, Metalwork Fabrication	Sharps, noise, heat, CO gas, infrared, hot objects, flame, fire/explosion hazards, H_2SO_4 (IN CLEANING SURFACES).
Surface Treatment	Pitch (with Benzo-a-Pyrene), benzene, fire hazards, sharps.
Etching, Photo Engraving	Strong acids and acid gases (e.g. nitric acid), methyl cellulose acetate, and xylene. Carbon arc hazards: NO_x, O_3, other poisonous gases, ultraviolet radiation.
Electroplating, Electroforming	Electric currents, caustic soda, sulfuric acid, cyanide, lacquer vapors.
Chemical Coloring	Toxic coloring agents (e.g. Pb Acetate, Iodine, Barium Sulfide). Flammables, solvents, and lacquer vapors.
Niello	Pb fumes and Pb sulfide dusts.

Appendix E
Visual and Performing Arts (continued)

Gilding	Mercury exposure.
Cleaning, Polishing, Finishing	Pickling hazards: Strong acids, Na Bisulfate, K dichromate. Sandblasting: Silica. Grinding, sanding, and filing: metal particles, toxic metal dusts (e.g. Pb), grinding wheel dusts and fumes (e.g. silica, formaldehyde, irritants, and allergens).

DRAWING AND PAPER CONSTRUCTION

Chalk Drawings	Methylene chloride in the spray fixatives.
Glue Application	Toluene and Xylene exposure from rubber cement and other solvent-based glues. Allergens and solvents from epoxy adhesives. Isocyanates in polyurethane adhesives. Physical hazards from cyanoacrylate instant glues.
Markers	Xylene and toluene exposures from permanent markers and dry erase (white board) markers.

[1] Source: McCann M: **Artist Beware: The Hazards and Precautions in Working with Art and Craft Materials**. Watson-Guptill Publications. New York, 1979. [2] These potential hazards exist for only some of the processes used. The potential hazards are not a comprehensive listing, but provide important examples.

See OSPI Website: http://www.k12.wa.us/curriculumInstruct/arts/default.asp

Appendix F
Animals in the Classroom

The purpose of these guidelines is to provide information that will promote health and safety for staff and students when animals are brought into the classroom. Many times inadequate understanding of animal disease and behavior can lead to unnecessary risks for the students, teachers, staff, and animals. These guidelines are designed to promote a better understanding of:

1. Animals that are not safe to bring into classroom situations.
2. Safety precautions for animals which have the potential to transmit disease to children.
3. Safety precautions for introducing animals into classroom situations.
4. How to properly handle animal wastes to limit the spread of disease from animals to children.

I. Animals Which Are UNACCEPTABLE for Schools

A. Wild Animals. Wild animals pose a risk for transmitting rabies as well as other zoonotic diseases (diseases which can be transferred from animals to man) and, therefore, should not be brought to schools or handled by children. The behavior of wild animals also tends to be unpredictable.

Exceptions to this recommendation include those instances when wild animals are presented at schools by professionals who have experience handling wildlife, or the animals are displayed in enclosed cages which prevent contact between the animal and the children. Because of the high incidence of rabies in bats, raccoons, skunks, and wild carnivores, these animals should not be permitted on school grounds under any circumstances (including recently killed animals).

B. Poisonous Animals. Spiders, venomous insects, poisonous snakes, reptiles, and lizards should be prohibited from being brought onto school grounds.

Exceptions to this recommendation include those instances when such animals are presented at schools by professionals who have experience handling such animals, or the animals are displayed in cases which provide a physical barrier between the animal and the children (e.g., animal is enclosed behind sturdy glass or plastic).

C. Wolf-Hybrids. These animals are crosses between a wolf and a dog and have shown a propensity for aggression, especially toward young children. Therefore, they should not be allowed on school grounds.

D. Stray Animals. Stray animals should never be brought onto school campuses because the health and vaccination status of these animals is seldom known.

E. Baby Chicks and Ducks. Baby chicks and ducks are inappropriate in schools due to the high risk of salmonellosis and campylobacteriosis.

F. **Aggressive Animals.** Animals which are bred or trained to demonstrate aggression toward humans and/or animals or animals which have demonstrated similar aggression in the past should not be permitted on school grounds. Aggressive, unprovoked, or threatening behavior mandates an animal's immediate removal.

Exceptions may be sentry or canine corps dogs for demonstration that are under the control of trained military or law enforcement officials.

II. General Guidelines for Animals in Schools

It is important that animals which are brought onto school campuses be clean and healthy so that the risk of their transmitting diseases to students is minimal. Children tend to be more susceptible to zoonotic diseases and parasites than adults due to a lack of hand washing and the tendency of young children to put their hands in their mouths. Therefore, animals that are handled should be well groomed and free of internal parasites, disease, etc., to decrease the likelihood of the animal transmitting these vectors to the students. Visiting animals should be restricted to an area designated by the principal or administrator. Kittens and puppies may only be appropriate for short classroom visits.

A. **Verified Rabies Vaccination.** Evidence of current rabies vaccination is required for all dogs, cats, and ferrets which are brought onto school property for instructional purposes. Dogs and cats under three months of age and not vaccinated against rabies should not be handled by children.

B. **Health Certificates for Dogs.** A health certificate signed by a licensed veterinarian is required, showing proof of current vaccination against canine distemper, hepatitis, leptospirosis, parainfluenza, parvovirus, bordetella, and rabies. Animals must have had a negative fecal exam for internal parasites within the past six months. The animal should be free of external parasites such as fleas, ticks, and mites. Dogs over four months of age should be housebroken. Younger animals should be approved by the principal or administrator before visiting.

C. **Health Certificates for Cats.** A health certificate signed by a licensed veterinarian is required, showing proof of current vaccination against feline panleukopenia, rhinotracheitis, calicivirus, feline leukemia, and rabies. Cats should be free of external parasites such as fleas, ticks, and mites.

III. Proper Restraint of Animals

Because animals may react strangely to classroom situations, it is important to have an effective way to control them. Fear may cause an animal to attempt to escape or even act

aggressively in situations which are unusual to them. Appropriate restraint devices will allow the holder to react quickly and prevent harm to the students or escape of the animal.

A. Collars and Leashes. Dogs, cats, and ferrets should have a proper collar, harness, and/or leash as appropriate when on school grounds or in the classroom so that they can be easily controlled. Household rope or string is not considered an appropriate restraint. The owner or person responsible for the animal should stay with the animal during its visit to the school. No animal should be allowed to roam unrestrained on the school campus or in the classroom.

B. Pet Birds. Pet birds should never be allowed to fly free in a classroom.

C. Designated Areas. All animals should be restricted to the area designated by the principal or administrator. Animals may be allowed in school cafeterias at times other than during meals when:

1. Effective partitioning or self-closing doors separate the area from food storage or food preparation areas.
2. Condiments, equipment, and utensils are stored in enclosed cabinets or removed from the area when animals are present.
3. Dining areas, including tables, countertops, and similar surfaces, are effectively cleaned before the next meal service.

D. Estrus. Dogs and cats should be determined not to be in estrus ("heat") at the time of the visit.

IV. Special Conditions for Specific Animals

Specific recommendations should be observed for the following animals because of zoonotic diseases that they can carry or because of certain tendencies:

A. Parrots, Parakeets, Budgies, and Cockatiels. Because these birds can carry zoonotic diseases such as psittacosis, they should not be handled by children. Birds showing any signs of illness should not be brought to the school. Birds may be brought to school as long as their cages are clean and their wastes can be contained, such as within a cage. Birds permanently housed on school property in cages should be treated prophylactically for psittacosis 45 days prior to entering the premises.

B. Ferrets. Ferrets can be allowed to visit school classrooms, but they must be handled by the person responsible for them. Children should not be allowed to hold ferrets due to the animal's propensity to bite when startled

C. **Reptiles and Amphibians.** Because all reptiles and amphibians can carry salmonellosis, even when reared as pets or for display, special precautions should be instituted when school children handle them. School children under 12 years of age should be prohibited from handling reptiles and amphibians. No turtles with a carapace length less than four inches are allowed in schools. Any child handling a reptile or amphibian should be instructed to wash his/her hands thoroughly afterwards.

D. **Fish**. Disposable gloves should be worn when cleaning aquariums. Used tank water should be disposed of in sinks that are not used for food preparation or for obtaining water for human consumption.

E **Guide, Hearing, and other Service Dogs and Law Enforcement Animals.** These animals should not be prohibited from being on school grounds or in classroom situations.

V. Student Contact With Animals

Even very tame animals may react aggressively in strange situations; therefore, student contact with animals should always be supervised and regulated by a few basic rules.

A. Because increased activity and sudden movements can make animals feel threatened, all student contact with animals should be highly organized and supervised. Animal bites can usually be avoided if students are kept in small groups, and rough play or teasing of animals should not be allowed.

B. It is recommended that children not be allowed to feed pets directly from their hands.

C. Small animals such as rabbits, hamsters, gerbils, and mice should be handled with leather gloves whenever possible. Rabbits do not like to be held and will struggle to free themselves.

D. Children should be discouraged from "kissing" animals or having them in close contact with their faces. This statement is especially true for reptiles and amphibians.

E. Education with animals should be used to reemphasize proper hygiene and hand washing recommendations. All children who handle animals should wash their hands immediately after handling them.

F. Animals should not be allowed in the vicinity of sinks where children wash their hands; in any area where food is prepared, stored, or served; or in areas used for the

cleaning or storage of food utensils or dishes. Animals should also be restricted from nursing stations or sterile and clean supply rooms. Do not allow cats or dogs in sand boxes where children play.

G. Immunocompromised students may be especially susceptible to zoonotic diseases; therefore, special precautions may be needed to minimize the risk of disease transmission to these students. Consultation with the child's parents about precautionary measures is strongly advised. Recommendations for specific precautionary measures may also be solicited from the Washington State Department of Health Zoonotic Disease Program.

VI. Handling and Disposal of Animal Wastes While on School Campuses

A. Clean Up of Animal Wastes. Children should not be allowed to handle or clean up any form of animal waste (feces, urine, blood, etc.). Animal wastes should be disposed of where children cannot come in contact with them such as in a plastic bag or container with a lid or via the sewage system for feces. Food handlers should not be involved in the cleanup of animal waste.

B. Prohibited Areas. Animal wastes should not be disposed of, and visiting animals should not be allowed to defecate in or near areas where children routinely play or congregate (i.e., sandboxes, school playgrounds, etc.).

C. Litter Boxes. Litter boxes for visiting animals should not be allowed in classrooms.

Sources: *Alabama State Department of Public Health*
Washington State Department of Public Health
Washington State Department of Agriculture

Appendix G
Who's Who in School Environmental Health

The following professionals and agencies are concerned with school health and safety:

Environmental Health Specialists:
The environmental health specialist is the health professional that represents the local health officer.

Risk Managers and Safety Officers:
The risk manager is the safety officer at the educational service districts and larger school districts and is primarily responsible for the prevention and management of insurance claims and assuring compliance with safety requirements. The risk manager, or a school safety officer, is usually the environmental health practitioner's primary safety contact with the school district.

Local Health Department:
The local health department is the agency that carries out the mission of the local health officer as defined in RCW 70.05.070.

School District Board of Directors:
Elected members of the community who determine and adopt written policies for the development and implementation of programs, activities, services, or practices within the district.

Office of Environmental Health and Safety, Department of Health:
This office, among other duties, is responsible for carrying out the powers and duties of the Secretary of the Department of Health (RCW 43.70) in relation to environmental health in schools. These functions include guidelines and regulations development, technical consultation, training, evaluation, and investigation.

State Board of Education:
The State Board of Education is composed of officials elected by school district board members. The Board's responsibilities range from establishing minimum standards for education and certification to controlling the appropriation of funds for construction projects. See RCW 28A.04.

Superintendent of Public Instruction:
Under RCW 28A.03, the Superintendent of Public Instruction has many responsibilities including "supervision over all matters pertaining to public schools in the state."

Office of Superintendent of Public Instruction:
This agency carries out the powers and duties of the Superintendent of Public Instruction.

Educational Service Districts (ESDs)
Under RCW 28A.21, ESDs were created to: provide cooperative and informal services to local school districts; assist the Superintendent of Public Instruction and the State Board of

Education; and provide services to school districts to assure equal educational opportunity. They often consolidate certain administrative services with a number of school districts reducing duplication and saving costs. Risk management and insurance services are often housed in ESDs.

School Nurses:
School nurses are health professionals employed by school districts. Historically, school nursing was a health department function. They provide clinical services and numerous health screening and health education services to students. School nurses are the most likely to recognize outbreaks and clusters of environmentally associated disease, and they tend to view environmental hazards from a public health point of view. It is recommended that school nurses receive copies of inspection reports when possible.

School Facilities Advisory Board (SFAB):
This board provides guidance to the Superintendent of Public Instruction and the State Board of Education on school construction issues. Its members represent a broad spectrum of public and private sector interests.

Department of Labor and Industries (L&I):
The Industrial Safety and Health Division (WISHA) of the Department of Labor and Industries is responsible for enforcing the Washington Industrial Safety and Health Act. These are the occupational standards designed to protect all employees. The enforcement of these standards also indirectly benefits children in schools. The WISHA division is divided into two sections: voluntary services and compliance.

Department of Labor and Industries Consultant:
Schools can request the assistance of consultants without fear of an enforcement action. Labor and Industries consultants are usually willing to discuss health and safety issues with local health officials, although their focus is on the employees, not the students. Labor and Industries Services are divided into six regions and 21 offices located throughout the state.

Department of Labor and Industries Compliance Inspector:
A compliance inspector conducts routine or complaint inspections to enforce WISHA standards. Numerous sanctions can be levied against violators.

Department of Ecology (DOE):
DOE has rules regarding hazardous waste disposal.

Local Fire Marshal:
The local fire marshal is usually responsible for inspecting facilities for compliance with the state and local fire codes. New plans may be reviewed by the fire marshal and/or the building official, depending on the jurisdiction.

Appendix G
Who's Who in School Environmental Health (continued)

State Building Code Council (SBCC):
The SBCC assures that the State Building Code Act is implemented. It is responsible for the review, revision, and development of the State Building Code. The State Building Code (RCW 19.27 and WAC 248-51) includes the fire, energy, building, plumbing, electrical, water conservation, ventilation and indoor air quality, and mechanical codes. The SBCC is good source for information on any building-related code.

Washington State Association of School Business Officials (WASBO):
WASBO is the professional association for risk managers and other school business officials.

School Nurse Organization of Washington (SNOW):
SNOW is the professional association that serves school nurses.

Washington Association of School Administrators (WASA):
WASA is the professional association for school administrators (typically superintendents and assistant superintendents).

Washington State School Directors' Association (WSSDA):
WSSDA is the association serving school board members.

Association of Washington School Principals (AWSP):
AWSP is the association serving school principals and vice principals.

Washington Association of Maintenance and Operations Administrators (WAMOA):
WAMOA is the professional association for school facility directors and maintenance supervisors.

Washington Education Association (WEA):
WEA represents the public school teachers in Washington.

Washington State PTA:
The PTA represents the students and their parents.

Appendix H
Questions and Answers About School Health and Safety

Q. Is the school program a new responsibility imposed by the State Board of Health on local jurisdictions?

A. No. The State Board of Health regulations that govern environmental hazards in schools date back to 1955. The health officer's role in regulating the child's environment is similar to the role in foodservice establishments and water recreation facilities, except that schools are not required to have permits and cannot be closed unless by the health officer in case of an imminent danger or other emergency.

Q. What are the responsibilities of the local health officer?

A. WAC 246-366 requires the health officer to review new construction sites, review plans for new construction and modernization, conduct pre-occupancy inspections, and perform routine inspections of schools. All of these responsibilities require the health officer to provide notifications of requirements and recommendations.

Q. What is the difference between requirements and recommendations?

A. Regulations that are explicitly stated in the language of WAC 246-366 are required. Guidelines (including those cited by Section 140-Safety) are recommendations. Regulations can be enforced, recommendations cannot.

Q. Do requirements impact child health more then recommendations?

A. No. The recommendations are intended to address the higher risk health issues in many cases.

Q. Are the regulations enforceable?

A. Yes. Under the Revised Code of Washington, both the local health officer and the State Secretary of Health have the authority to enforce any rules and regulations of the State Board of Health that are codified as Chapters of the Washington Administrative Code (WAC). However, there are no mechanisms provided in the WAC for administrative enforcement (e.g., fines, closures, etc.), therefore a civil action must be filed in court to enforce the school regulations. Consequently, enforcement action is rare. The local health officer may call upon the secretary to assist with such an action if needed.

Q. Are the recommendations enforceable?

A. Yes and No. Non-mandated recommendations are not enforceable. Requirements that are codified are enforceable, but the appropriate enforcement authority may not be the health agency. These include the requirements cited in WAC 246-366-140.

Q. What are the primary responsibilities of the local health officer?

A. WAC 246-366 requires the local health officer to review new construction sites, review plans for new construction and remodeling, conduct pre-occupancy inspections and perform routine inspections of all K–12 public and private schools. For routine inspections, the regulations direct the health officer to review the high-risk environments (e.g., shops, science labs, playgrounds, PE, art, etc.). After the routine inspection, the health officer is to forward a copy of the findings to the Board of Education.

Q. Are children protected by occupational standards that cover the teachers?

A. **No.** Occupational standards (WAC 296-62,64) apply to the employer-adult employee relationship and address the range of work activities to which adults are typically exposed. School children are not in an employer-employee relationship legally rendering the occupational standards inapplicable and often irrelevant. Environmental health objectives to assure a healthy learning environment are different than those designed to assure a healthy working environment. Many of their important exposures occur in the context of play and recreation. Where many of the concepts in occupational standards are transferable (i.e., science and vocational instruction), the actual standards are sometimes inadequate or inappropriate. Occupational standards were developed exclusively to protect the physically, mentally, and socially mature adult. Pediatric environmental health must serve as the basis for health officer involvement.

Q. What is meant by pediatric environmental health?

A. Pediatric environmental health evaluates physical, chemical, and biological exposures in light of the developmental characteristics of children. These characteristics include competencies (physical dimensions, capabilities, body system development), motivation (why children interact with their environment), and temperament (intensity of interaction with the environment).

Q. What is the role of the health officer in relationship to the Department of Labor and Industries (L&I)?

A. The local health officer is responsible for the public health surveillance of environmental hazards which affect children in school, a learning and recreational environment. L&I is responsible for enforcing occupational hygiene and safety standards to protect adult employees in the working environment including schools. With the exception of the electrical code and classroom portables, this agency has no plan review function. L&I performs a valuable consulting service in industrial hygiene and safety. Schools often use this service. Local health officials should work closely with local L&I consultants in a cooperative relationship. Many of the activities of L&I help to protect children's health.

Q. What is the role of the health officer relative to the fire marshal?

A. The state fire code, as enforced by the local fire marshal, addresses fire safety items in greater detail than the health department guidelines and with more statutory authority. Fire safety items in the health department guidelines may be deferred to the fire marshal to reduce duplication of services. (Issues not relating to fire and explosion such as protecting children from acute poisoning and chronic toxicity are usually health department matters.)

Q. What is the role of the health officer relative to the building department?

A. The building official reviews plans for new construction for compliance with applicable building, mechanical, and life safety codes. To determine what is appropriate in each jurisdiction, it is necessary for the health agency and local building department personnel to know what each other's capabilities and constraints are. The health officer should initiate communication with the building department in this regard.

Q. How is the plan review function of the health officer unique?

A. The health officer's plan review function heavily emphasizes recommendations rather than requirements. To be effective, very early involvement in the planning process is required. Also, some of the new construction activities that should involve a health officer's plan review do not require a permit from the local building department. Finally, many items in the health regulations apply to existing facilities and practices as well as new construction.

Q. When is site approval required?

A. Site approval is required whenever plan review is required. Automatic approval can be granted if all of the following conditions are met: no new property is being developed; no buildings are being converted to use for school instruction; no new area of existing property will be covered by a new building, portable, or building expansion; and no significant increases in occupancy are being proposed.

Q. When is plan review required by the health official?

A. Plan review is required for new school construction and modernization of existing facilities. For portables, alternative methods are available to satisfy the plan review requirement.

Q. How is the health officer's inspection function unique?

A. The primary focus of a health and safety inspection is education and recommendation. There are no sanctions for a routine enforcement program. Effectiveness depends on the mandated direct communication with the school district board of directors.

Q How often should school inspections be done by the health official?

A. Previous board of health rules required annual inspections; however subsequent amendments were made to require them on a "periodic" basis. The health officer is responsible for scheduling and conducting the inspections. The intent of the law is that inspections be scheduled often enough to assure that hazards are identified and children's health is protected.

As working relationships become more coordinated and cooperative with school districts, the frequency may be reduced to every second then every third year, with follow-up inspections and well-documented self-inspections filling in between. It is very important that there be documentation of the school districts' correction of problems from year to year also. If very few or no problems are found after several routine inspections, the health officer may elect to reduce the frequency even further, however, the state school steering committee generally agreed that schools should have a complete inspection by the health department at least every five years. The health officer may elect to maintain or increase inspection frequency when reported problems continue unabated.

Appendix I
Safety and Health Websites

Government Websites:

Bureau of Labor Statistics	http://stats.bls.gov/
Centers for Disease Control and Prevention	www.cdc.gov
Consumer Product Safety Commission	www.cpsc.gov
Environmental Protection Agency	www.epa.gov
Federal Emergency Management Agency	www.fema.gov
Food and Drug Administration	www.fda.gov
Mine Safety and Health Administration	www.msha.gov
National Cancer Institute	www.nci.nih.gov
National Institute of Health	www.nih.gov
NIOSH	www.cdc.gov/niosh/homepage.html
National Weather Service—West. Reg.	www.wrh.noaa.gov
OSHA	www.osha.gov
US Dept of Health and Human Services	www.os.dhhs.gov
US Dept. of Transportation	www.dot.gov
US Fire Administration	www.usfa.fema.gov
US Government Printing Office	www.access.gpo.gov

Washington State

Wash. State Dept of Ecology	www.wa.gov/ecology
Wash. State Dept of Health	www.doh.wa.gov
Wash. State Dept of Labor & Industries	www.wa.gov/lni

Organizations

Advocates for Highway and Auto Safety	www.saferoads.org
American Conf. of Gov. Industrial Hygienists	www.acgih.org
American Industrial Hygiene Association	www.aiha.org
American Lung Association	www.lungusa.org
American National Standards Institute	www.ansi.org
American Red Cross	www.redcross.org
ASSE	www.asse.org
Center for Safety in the Arts	www.artswire.org
Human Factors and Ergonomics Society	www.hfes.org
Illuminating Engineering Society of N. America	www.iesna.org/
Industrial Safety Equipment Assoc.	www.safetycentral.org
Insurance Institutes for Highway Safety	www.hwysafety.org
National Air Duct Cleaners Association	www.nadca.com/
National School Board Association	www.keepschoolssafe.org
Mayo Clinic (offers weekly newsletter)	www.mayohealth.org
National Fire Protection Agency	www.nfpa.org
National Safety Council	www.nsc.org

Appendix I
Safety and Health Websites (continued)

General Information Sources

Associated Industries of the Inland NW	www.aiin.com
The Federal Register	http://fr.cos.com/
Fremont Compensation Insurance Group	www.fremont.com
Lighting Design Lag	www.northwestlighting.com
Material Safety Data Sheets (accesses MSDS data from Cornell Univ.)	www.msds.pdc.cornell.edu/msdssrch.asp
Lighting	www.lightingresource.com
Professional Development Associates	www.pdanet.com
Safety Online	www.safetyonline.net
"Safety Currents" (weekly newsletter)	www.safetyonline.net/currents/home.htm
"Safety on the Internet"—book	www.govinst.com
Traffic Safety Village	www.drivers.com
World Safety (monthly newsletter)	www.worldsafety.com

Safety Vendors

Oxarc	www.oxarc.com
Cole-Parmer Instruments Co.	www.coleparmer.com
Grainger	www.grainger.com
Lab Safety	www.labsafety.com
SKC, Inc.	www.skcinc.com
Masune 1st Aid & Safety	www.masune.com
Moore Medical Corp.	www.mooremedical.com
Hach	www.hach.com
JJ Keller	www.jjkeller.com
Quest Technologies	www.quest-technologies.com
Coastal Safety and Environmental	www.coastal.com
Mitchell Instruments	www.mitchellinstrument.com
The Safety Zone	www.safety-zone.com

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Past President, Inland Northwest Chapter ASSE

Appendix J
Selected Bibliography

Noise And Vibration Control
Edited by Leo L. Beranek
Library of Congress # 78-148977
ISBN 07-004841-X
Published by McGraw Hill, Inc.

Artist Beware
By Michael McCann, Ph.D.
Watson-Guptill Publications, N.Y.
1515 Broadway
New York, NY 10036
Library of Congress
RC963.6.A78M32 702.B 79.18982
ISBN 0-8230-0295-0

Injury In America
National Academy Press
2101 Constitution Avenue, NW
Washington, D.C. 20418
Library of Congress # 85-60999
ISBN 0-309-03545-7

Washington Education Directory
Barbara Krohn and Associates
835 Securities Building
Seattle, WA 98101
(206) 622-3538

Noise and Noise Control
Malcolm J. Crocker/Frederick M. Kessler
CRC Press, Inc.
2000 Corporate Blvd., NW
Boca Raton, FL 33431
Library of Congress # 75-2352
ISBN#0-8493-5093-0 (Vol. 1)
0-81819-064-3

The Science Instructor's Safer Source
ChemicalCatalog/Reference Manual
By Flinn Scientific, Inc.
P.O. Box 2A, 917 W. Wilson Street
Batavia, IL 60510
(312) 879-6900

Hazards in the Chemical Laboratory
Edited by L. Bretherick
ISBN 085186 4198
Published by The Royal Society of
Chemistry
Blackhorse Road
Letchworth, Herts, SG6 1Hn, ENGLAND

Prudent Practices for Disposal of
Chemicals From Laboratories
National Academy Press
2101 Constitution Avenue, NW
Washington, D.C. 20418
Library of Congress #
ISBN 0-309-03390-X

Health Hazards in Arts and Crafts
Society for Occupational &
Environmental Health
1341 G Street, NW, Suite 308
Washington, D.C. 20005
Edited by Michael McCann, Ph.D., & Gail Barazani
Library of Congress # 80-52060
ISBN 0-931770-01-7

Industrial Ventilation—17th Edition
Committee on Industrial Ventilation
P.O. Box 16153
Lansing, MI 48901
Lithographed by
Edwards Brothers, Inc.
2500 South State Street
Ann Arbor, MI 48104
0-8493-5094-8 (Vol. 2)

Appendix J
Selected Bibliography (continued)

Health Hazards Manual for Artists
By Michael McCann
Nick Lyons Books
32 West 21st Street
New York, NY 10010
ISBN 0-941130-06-1

U.S. Dept of Health, Education & Welfare
HEW Pub No. (NIOSH) 76-162
Contract No. CDC-99-74-33
For Sale by Superintendent of Documents

U.S. Dept. of Health, Education and Welfare
Public Health Services
Center for Disease Control
National Institute for Occupational Safety and Health
Division of Physical Sciences and Engineering
Cincinnati, OH 45202

Industrial Noise Control—
Fundamental and Applications
By Lewis Bell
Library of Congress
ISBN 0-8247-1787-2
Published by
Marcel Dekker, Inc.
270 Madison Avenue
New York, NY 10016

School Indoor Air Quality
Best Management Practices Manual
Washington State Department of Health
PO Box 47825
Olympia, WA 98504
Available at: www.doh.wa.gov/ehp/ts/iaq/pdf

Safety Guide for Vocational, Trade & Industrial
and Technology Education
Office of Superintendent of Public Instruction
PO Box 48200
Olympia, WA 98504

Appendix K
Fee Guidelines

Public Health System Financing Principles:
"The history of public health financing in Washington State reflects a series of historical responses to specific situations in local communities and across the state rather than systematic development according to any established principles." This is a finding from a recent report completed by the University of Washington's Health Policy Analysis Program. The Finance and Governance Technical Advisory Committee has developed financing principles intended to serve long-term guidelines for state and local government to use in making decisions about how public health activities are financed.

The finance principles are designed to be general statements, which can be implemented through specific, short-term strategies. They cover issues of public benefit, incentives for building system efficiency, stability of financing, and equity of opportunity for basic public health protections. Three assumptions have served as philosophical underpinnings in the development of the principles: (1) State and local government have a shared responsibility along with the individual and the community in the protection and promotion of the public's health; (2) a well-functioning public health system requires an adequate base of support from state and local government; and (3) a fundamental level of capacity is needed throughout the state for carrying out the core public health functions.

In order to make best use of the resources available for strengthening the system, these principles should become the framework for guiding public health financing policy. To best understand their impact in guiding policy decisions, the financing principles should be considered as an interactive package of components, rather than as separate, isolated rules.

Financing Principles:

1. Public health activities vary along a continuum of benefit, from primarily benefiting individuals (e.g., reproductive health examinations, travel immunizations) to primarily benefiting communities (e.g., communicable disease investigation, health education campaigns). In some cases, public health activities have a population-based benefit while being directed at an individual or family (e.g., child abuse or domestic violence intervention, prenatal case management). The degree of benefit to the individual and the community, as well as whether the activity is conducive to fee collection, should all be considered in determining the financing of a public health activity (reference the Fee Principles for Local Health Jurisdictions).

    a. When an activity has primary benefit to an individual or an organization or protects the public from individual choices (e.g. on-site sewage permit, food handler's certification), a greater share of the cost should be passed on, through a fee or permit, to the individual or organization. There are circumstances where an individual cannot pay, and the fee should be subsidized.

b. When an activity has primary benefit to the community (e.g., early childhood immunizations, monitoring on-site system failure), a greater share of the cost should be publicly subsidized.

c. In the event that charging a fee jeopardizes community health status (e.g., HIV counseling/testing, on-site repair permit), the local health jurisdiction should have an established policy for fee waiver or adjustment. This in turn may require public subsidy of the activity.

2. When a public health activity has benefits to the population beyond the boundaries of the public health jurisdiction (e.g., response to a public health emergency, groundwater monitoring, INPHO), a regional financing scheme (e.g., funds, staff, resources, mutual aid agreements) involving state, local, and tribal governments should be developed.

3. The recipients of state public health financing should be accountable through performance-based contracts for:

   a. Establishing the capacity to perform core public health functions.

   b. Contributing to the improvement of community health status by impacting health risk and protective factors.

4. The state should provide start-up financial incentives to initiate the formation of long-term partnerships between local health jurisdictions, tribal governments, community based organizations, and other organizations, which will increase regional capacity and improve the overall efficiency and effectiveness of the public health system (reference the Public Health Partnership Principles).

5. The state will intercede when a local health jurisdiction has not independently attained the capacity required to perform the core public health functions and has not entered into a partnership as a means to improve performance. The state will charge back to local governments a share of the costs of carrying out the core public health functions in that community (reference RCW 43.70.130 and 70.05.130).

6. Both stability and flexibility are necessary for state and local government public health financing.

   a. Stable financing at an adequate level, which is both predictable and responsive to changes in the population, is required for carrying out the core public health functions.

b. Flexible financing, responsive to health assessment information including the degree and extent of public health threat, the effectiveness of prevention activities, and the community's priorities and values is required for public health activities which reflect policy choices of a community (e.g., anti-smoking education for youth, fluoridation of water supplies).

7. Additional state funding for local health jurisdictions shall not replace local government funding (reference RCW 43.70 58 and WAC 246.05.030).

8. The state's methods of distributing funds to local health jurisdictions should consider local government's ability to support the core public health functions, local population characteristics, service cost delivery factors, and the nature and extent of community health risk and protective factors.

Local Health Jurisdiction Fee Principles

The cost of protecting the public's health is supported by federal, state and local government, as well as direct charges to the consumer in the form of fees for services and permits. The revenue generated by fees is a legitimate and necessary component of the overall mix of public health financing. However, not all public health activities are conducive to fee collection. Some activities directly benefit an individual, while other activities have a combination of individual and community benefit.

Local government has authority for decisions about which services are supported by fee revenue and the level of that support. The Finance and Governance Technical Advisory Committee, as part of its study of public health system financing, recommends that local health jurisdictions have fee policies and practices that are consistent with the Fee Principles (listed below). These principles are intended to be a guide for public health administrators and board members in the process of determining fees for the activities of the local health jurisdiction.

Each local health jurisdiction should have a written fee policy that:

- Complies with RCW 70.05.060 (see attached)
- Describes a process of fee schedule development and frequency of review
- Describes a method for service cost calculation
- Describes a philosophy of service cost recovery
- Addresses the use of sliding fee scales
- Addresses fee collection practices

Prior to setting a fee, the service should be clearly defined, using standard definitions of practice when they exist. The actual cost of the service, including indirect cost, should be calculated using sound and consistent methodology.

Appendix K
Fee Guidelines (continued)

Fee schedules should be routinely reviewed and revised. Hourly rates should be established to cover services not specified by the fee schedule.

Cost recovery from fees can vary by service and should be consistent with the local health jurisdiction's philosophy of service cost recovery. The following factors should be considered in setting a service fee:

- If a service primarily benefits an individual or business, the cost recovery rate should be greater (e.g., on-site sewage permit, food handler's certification).
- If a service primarily benefits the population by protecting them from health problems or hazards, the cost recovery rate should be lower (e.g., childhood immunizations, on-site repair permit).
- It should be taken into account that a high rate of cost recovery, for some services, may significantly influence practices and behaviors which put the public at risk of health problems (e.g. temporary food service permit, HIV counseling/testing).

Local government should have the primary responsibility for subsidizing services which have less than 100 percent cost recovery from fees, except when grant funding is specified to support a service.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

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